



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

B 433439

General Library
—OF—
UNIVERSITY OF MICHIGAN.

PRESENTED BY

The Commissioner

22 Oct. 1897

S
99
A3

PUBLIC DOCUMENT.

No. 14.

66695
FIRST REPORT

OF THE

Commissioner of Agriculture and Labor

TO THE

GOVERNOR OF NORTH DAKOTA,

FOR THE

YEAR ENDING OCTOBER 31, 1890.

BISMARCK, N. D.:
TRIBUNE, STATE PRINTERS AND BINDERS.
1890

STATE OF NORTH DAKOTA,

DEPARTMENT OF AGRICULTURE AND LABOR.

TO HON. JOHN MILLER,
Governor of the State of North Dakota.

SIR: In compliance with law, I herewith submit Biennial Report as Commissioner of Agriculture and Labor from the date of assuming the office, on November 5, 1889 to October 31, 1890.

Very Respectfully,

H. T. HELGESEN,
Commissioner of Agriculture and Labor, and *Ex Officio* State Statistician.

INTRODUCTORY.

In presenting the accompanying statistics and other matter, a few words in explanation may not be out of place. Many imperfections will be found in the report, and the result as a whole is very unsatisfactory to the Commissioner. The work has to some extent been done in the dark, the office having but little to serve as a guide, and, with one or two exceptions, access to the experience of others in other states was not available until late in the year. To a certain extent the pathway has been hewn out before advance could be made, and the experience gained during the year will certainly be of value in prosecuting the work in the future.

Almost immediately upon assuming the duties of the office in November, 1889, the incumbent was, by the Legislature, charged with looking after the destitute and distributing supplies among them in the portions of the State where crops had failed. This work proved very arduous indeed, and absorbed the entire attention of the office, with the clerk hire allowed by law, until about the first of May—considerable of the work reaching until June, and even July. The vast volume of correspondence relating to the subject necessitated the employment of an expert stenographer and typewriter, and even then the correspondence sometimes fell behind.

To this absorption of energies in work not ordinarily belonging to the office was added the duty of serving on the Seed Wheat committee, which consumed several weeks of time.

Then, again, the late date at which the laws passed by the last Legislature became available caused considerable delay in ascertaining the duties of the office as defined by the new law. It was at once seen to be impossible to fully comply with the law in the report to be issued this year; as, instead of the two years ordinarily consumed in gathering the information and preparing the report, the time for whatever might be done was now limited to less than six months. Besides this, it was necessary to originate and inaugurate almost every part of the process from the start, with scarcely a guide of any kind. To do this, without former experience in this kind of work, without blanks or other guides, with scarcely any reports from other States and without a complete file of the reports of the late Territory, is a difficult and delicate task, as any one will find who undertakes it under similar circumstances.

After ascertaining the duties of the office, it was necessary to prepare blanks very hastily and have them printed hastily. They naturally proved defective in some particulars, and in certain cases slight errors interfered with the proper collection of statistics. It was impossible to have them ready at the time the assessors' blanks were delivered to them, on the last Saturday in April, but they were forwarded to the county auditors immediately after the 10th of May—the auditors meanwhile being requested to ask the assessors to defer beginning their work till the blanks for statistics could be placed in their hands.

Some of the assessors declined to wait; others made little or no use of the blanks when they were received; while many encountered among the farmers themselves more or less opposition to the collection of statistics. In the main, the county auditors are believed to have done all that they could to have the statistics collected, and the Statistician is under obligation to many of them for painstaking care in the preparation of the reports called for.

The assessors, as a rule, complained that they found the collection of the statistics more troublesome and attended with greater difficulty than any other part of their work, while they were allowed no extra compensation therefor. In some cases, of course, the assessors were incompetent to perform properly the work required. It is generally considered an injustice to be required to perform the most difficult and distasteful part of the work assigned with the understanding that no compensation is received for that part. Of course, when the assessors accept the office they do so with the full knowledge, or at least they should have, of what will be required of them; yet when they come to do the work, every excuse and loop-hole is taken advantage of to evade the portion of their work which is least to their fancy, and which the law says they shall perform without additional compensation. I respectfully recommend the repeal of that clause of the law, or its amendment so as to carry the idea that the gathering of statistics is as important a part of the work of the assessors as any other, and that its proper performance is necessary in order to secure their pay; also, the repeal or extension of the limits of the clause restricting the compensation of any township assessor to \$60 per year as a maximum.

Ex-Territorial Commissioner McClure obtained in 1887 the official opinion of Attorney General (now Judge) Templeton, to the effect that the statistical work is as essential as any part of the assessor's duties, and that the deliberate neglect or refusal of any assessor to collect and transmit the statistics, rendered him liable to removal from office and also to prosecution criminally. An equally emphatic opinion as to the duty of assessors was obtained by the present incumbent from Attorney General Goodwin, which was communicated, with that of ex-Attorney General Templeton, to the counties where difficulty was reported in procuring the proper work done. It all seems to have been of no avail. The

law provides for no specific penalty for neglecting this portion of the work, does not specifically forfeit the pay of those who neglect it, and it would probably be difficult to legally compel any one to do what he is not paid for doing.

Probably less than half of the assessors of the State fully perform this part of their duties, while many of those that desire to do so are prevented by the refusal of farmers and others to give the necessary information, under the mistaken impression that the figures are used by grain gamblers in their speculations. It would seem that all intelligent persons ought to know that the grain gamblers and boards of trade are not at all dependent for their information on the statistical reports thus gathered, as it can be shown conclusively that they have other channels of information which are prompt and reliable.

But astounding as it may seem, the assessors have in some instances been assisted in evading their duties, and guaranteed immunity, by men in authority, whose position officially, as well as private interests and local pride, should have prompted them to active assistance in the gathering of such statistics. One instance is cited—the most conspicuous that has come to notice.

The necessary blank books were mailed to the county auditor of Morton county on May 10th, in accordance with a circular previously sent out, promising them at that date. On May 19th the auditor notified this office that the books had not been received, upon receipt of which (May 21st) a second supply was immediately mailed him. What became of the first supply, or why they went astray, was never discovered. Nothing more was heard; and, the returns not being received at the proper time, a letter of inquiry was written on September 30th, which elicited the following reply:

AUDITOR'S OFFICE, MORTON COUNTY,
MANDAN, N. D., October 2, 1890.

Hon. H. T. Helgesen, Commissioner, Grand Forks, N. D.:

DEAR SIR: In reply to your favor of September 30th, I regret to have to say that I will be unable to furnish you with any summary of the statistics of this county for this season, owing to the fact that only four out of the ten assessors made any returns. I could not enforce the law, as the blanks were not received at this office until May 23d, thus giving the assessors a reasonable excuse; besides, the city and civil township boards refused to allow their assessors any extra compensation for the statistical work.

I attended the meeting of the council of the city of Mandan when the city assessor was appointed, and called the attention of the newly appointed assessor to the fact that the taking of the statistics was a part of his duties under the laws governing assessors, when the mayor, the late Mr. Meech, advised the assessor to go ahead and do the work of assessing only, not minding the statistical part, and that he (the mayor) would guarantee the assessor his pay, the law to the contrary notwithstanding.

In the face of such opposition, and when the blanks were not on hand till the latter part of May, it would have been folly for me to attempt to enforce the law.

Very respectfully yours,
JOHN FORAN,
County Auditor.

Other facts pertaining to the difficulties experienced will be found in the special mention of the reports from the different counties. As other evidence that the statistics are incomplete and unreliable, a few remarks by other county auditors and others are given:

TESTIMONY FROM AUDITORS AND ASSESSORS.

County Auditor Hale, of Ramsey county, in transmitting the summary of that county's statistics, says:

I believe that this report is utterly unreliable. The assessors cannot be made to take an interest in the matter, and they report that there is a general disinclination on the part of the people to give the information required. They also report that it is more trouble and takes more time to make their reports on this subject than the assessment, and that they only get paid for the assessment. Some of the books were returned to the assessors for completion, and have been but recently returned to me.

County Auditor Perry, of Richland county, writes:

The statistics reported to this office by the assessors, are in such shape that the d—I himself could not make anything out of them, that is, to make a complete report. I would gladly furnish you all that you desire if it were possible to do so; but I can't gather it myself, and I think your reports will be incomplete so long as townships continue to elect their poorest men assessors, as seems to be the case in many instances. In some towns in this county it bothers us to know what the assessment books are when returned. I hate to have the county go unreported, but the statistics are not here to furnish you.

County Auditor Langlie, of Traill county, says:

I send you herewith the statistics as returned by the assessors. I have had considerable trouble in getting any at all, and did not get the last one till yesterday. They are all incomplete—first, for the reason that some of the assessors would not wait until they got the blanks, and then refused to go over the ground a second time; and secondly, because some of the farmers positively refused to answer the questions required. I do not see how it all can be tabulated, and so I send you the returns as sent in by the assessors.

County Auditor Avery, of Burleigh county, says:

The assessors in gathering the statistics were careless, and the figures were incomplete; but what I send you is the best that can be made from the returns.

County Auditor Walker, of Barnes county, says:

I find some of the books returned by the assessors are filled out in very poor shape, and it will be a hard matter to make much out of them. Assessors claim that farmers refused to give the statistics in a great many instances.

The assessor of Falconer township, Grand Forks county, in transmitting his returns to the county auditor says:

In some cases it has been impossible to procure accurate agricultural statistics, on account of absolute refusal on the part of some of the farmers to give the required information—claiming that such information is used against

them by wheat speculators and Eastern boards of trade, generally, by enabling them to estimate, with all desirable approximation, the amount of wheat "in sight," and then to obstruct, temporarily, at least, the free play of the law of supply and demand, to their own personal aggrandizement.

The assessor of Grand Forks city certifies:

I find it impossible to get the correct report as required.

The assessor of the Third District of Stutsman county, reports as follows:

The reason that this agricultural report is not complete is that we were not furnished blanks enough. There were five men taking the assessment in this district, and but one blank for statistics.

[Regarding the above, the Commissioner will say that the auditors were first written to to find out how many assessors there were in their counties, and, in accordance with their answers, sufficient books were sent to supply them all, with an extra one or two in each case, and afterward additional books were furnished whenever requested by either auditors or assessors.]

As still another evidence of the untrustworthiness of the returns, even when apparently correct on the face, the case of Americus township, Grand Forks county, may be cited. Although one of the most populous and best developed towns in that county, the assessor reports that there are in the town but 1,665 acres under cultivation, that the total cash value of the farms and improvements is but \$13,500, that but 885 acres of wheat was raised in 1889 and not an acre in 1890; that the entire town in 1889 raised 424 bushels of potatoes, and in 1890 sowed 186 acres of oats and 80 acres of barley. The same assessor in his regular returns to the county auditor for 1890 gives a very different report. The same man at the same time reports the various matters of his town as follows:

	For Statistics.	To the Auditor.
Value of farms and improvements.....	\$13,500	\$81,910
Number of horses	52	370
Number of cattle.....	52	408
Number of mules and asses	0	32
Number of sheep.....	2	32
Number of hogs.....	12	156
Value of farming machinery	\$ 795	\$ 1,832
Number acres in wheat in 1890.....	0	4,010
Number acres in oats in 1890	186	654
Number acres in barley in 1890	80	270
Number acres in corn in 1890	1	10
Number acres in other crops in 1890	28	227

How much of this discrepancy may be due the assessor's not waiting till the books for statistics were ready is not known, but the above are his figures, returned without explanation, and they are a part of the official figures from which the statistics for Grand Forks county are made up. How many more such reports are passed for accurate work there is no means of knowing without extensive investigation.

THE RESULT UNSATISFACTORY.

Certainly nothing more is required to show that the gathering of statistics under the present plan and laws is a gigantic humbug, that the people's money paid for doing the work is thrown away, and that the results are unreliable.

Nor is this an exceptional year. Ex-Territorial Commissioner McClure, in his Biennial Report for 1887-8, after recording the utter failure of his efforts to procure satisfactory statistics, says:

The Statistician has honestly and earnestly endeavored to obtain the statistical information required under the provisions of the law quoted in full on the first pages of this report; but all the labor given to the work by this office, and by the many assessors who performed their duty, and the considerable expenditure of funds for the necessary blanks and postage, have been for naught. * * * * * The Statistician is quite positive in declaring that no effort, persuasion nor diplomacy which can be exerted by his office will accomplish the desired results under the law as it now reads, and, therefore, much as he would regret to see this backward step taken, he deems it advisable to strike it from the statute books rather than that additional outlays should be contracted, with the promise of no better returns in the future than the office has secured in the past.

The conclusion is forced that the State should by all means devise measures that will assure the satisfactory performance of the work. It would seem idle to talk about abolishing all attempts at gathering statistics, as to do so would brand the State in the community of States much as a large business firm would be branded in the financial world were it to announce its determination to take no inventories, keep no books or other accounts that would enable it to ascertain whether it is doing a gaining or losing business. The State has an officer to procure statistics, and cannot afford to do without the best results of his work that can be attained. Other States succeed in obtaining satisfactory work, and North Dakota must not be behind the foremost of them. Some of the methods employed by other States are noted under the title of "Remedies Suggested."

VALUE OF STATISTICS.

It is presumed to be unnecessary to speak at length of the value of statistics when reliable. All civilized countries gather them, and they form the basis on which the progress of each country and the world is calculated. The States of the west and south are competing with each other in their bids for immigration, for the investment of capital, for the development of their natural resources. The first question asked by the intelligent immigrant, capitalist or business man when contemplating settlement, investment or enterprises in any of such States is as to the resources, progress and condition of the States under consideration, and of the various portions of such States. The facts as to the past, as well as the outlook for the future are demanded; and the conditions of the people both materially and socially, are objects of

careful investigation. The official statistics should reveal all this accurately. No guess-work should be tolerated. Statistics are not collected by any respectable authority to prove any pre-conceived opinions, or tampered with to deviate a shade from the actual results. On the contrary, they form the groundwork on which intelligent conclusions must rest. If North Dakota expects to stand with the progressive states of the Union, to have facts and arguments indisputable to present to the prospective settler, investor or business man, she must make her bureau of statistics above reproach. Its work must be full, complete and reliable.

Money appropriated for such a purpose as this is surely as well and wisely given as any that can be expended for any State purpose whatever, and regard should be had only to the efficiency of the service, honestly and economically performed. To cripple the department for want of proper means with which to do its work would be like employing a laborer by the day or month and then withholding the tools necessary for him to use, on the plea that they cost too much. The more efficiently a laborer can be equipped for his work, the more valuable service will he be able to render his employer.

Ex-Commissioner McClure says in his second biennial report:

On the question of the great value and usefulness of complete and authentic data, annually compiled, relating to agriculture, mining operations, live stock, commerce, financial condition, population, etc., there can be no dispute. Official publications, containing authentic statements of the yearly products of the land, showing, by comparative tables, the annual growth of the live stock, mining and commercial interests of the country, and its steady increase in population, always have and always will continue to be the most convincing, weighty and effective argument wherewith to attract that attention from the outside world on which depends a complete realization of our future possibilities in the way of wealth and development.

Ex-Commissioner Hutchins, of Iowa, says in his last report:

I repeat what I said two years ago, that the work of an important department like this, of interest to employer and employed alike, giving the whole world information regarding the state which cannot be found elsewhere, ought not to be crippled in means for the most complete results in investigations of the great questions of labor and capital.

Commissioner Betton, of Kansas, says in his report for 1889:

In the absence of authentic figures the platform orator and the designing editor could promulgate theories based on premises not easily refuted. The facts gradually evolved by the labor bureaus tend to neutralize the effect of these reckless assertions, and they are slowly gathering, by diligent personal investigations, by a liberal use of the mails, and by every channel of information which the growing experience of trained operatives can make available, a volume of statistics which are from year to year enlarging the scope of the work undertaken and increasing the value of the facts deduced. While this form of investigation is necessarily new and crude, with no time-honored precedents to guide the commissioners, who must hew their own pathway as they advance, still much has already been accomplished. The results of their work are sought for and published in the daily press; the workman and the employer both, perforce, become students in this new de-

parture in political economy; incontrovertable facts are inculcated which before were unattainable; the labor agitator finds his influence weakening; and the pugnacious or despotic employer, who held that labor had no claims which he was under any obligations to respect, that so long as he paid for it he had a clear right to buy his labor in the cheapest market, either foreign or domestic, is slowly dropping his defiant attitude.

Hon. Carroll D. Wright, Commissioner of Labor, Washington, D. C., says:

The critics of our work are usually men who dislike the results thereof, and have no other course open to them than to criticise the methods and men. So far there has been no successful attack on the work of the various bureaus, and this is because the conclusions stated by the officers in charge have been simply statistical deductions, and not opinions; not theories, but the results of actual investigation. The old idea of securing information to coincide with certain views, or to establish theories, has passed away, and the importance of exact knowledge is now clearly realized.

REMEDIES SUGGESTED.

Below will be found some suggestions as to remedies that may be adopted. It is suggested—

1. That the Commissioner be authorized to call upon the Attorney General for such assistance as may be necessary in the preparation of blanks for the use of his office, and that it be made the duty of the Attorney General to render such assistance;

2. That the assessors be required to obtain agricultural statistics from the farmers and others under oath, in the same manner as the listing of property for taxation is required under oath; that the assessor shall present with his return of statistics to the county auditor an alphabetical list of the names of all persons who shall refuse to furnish the required information in the manner indicated, and that a special tax of five dollars shall be entered against each person so refusing, and against the property whose agent shall so refuse, said tax to be collected as other taxes, and to become a lien on any real or personal property now or hereafter owned by such person or agent; that the assessor be required to obtain the statistics so refused, to the best of his ability, from neighbors or others, that may be supposed to be best prepared to furnish it, and that he be authorized to examine under oath any person he may have reason to believe capable of furnishing the required information; also, that the assessor be required to indicate in his returns the manner in which he obtained the statistics which had been refused, and whether he believes the same to be reasonably reliable;

3. That the assessor transmit to the county auditor not later than the fifteenth day of July of each year, the statistics taken by him, fully tabulated and footed up for his township or assessor's district;

4. That the auditor be required to carefully examine the statistics returned by each assessor as soon as practicable after the same are received by him, and if the work be found to be fully

and properly done, he shall issue his certificate to that effect, which shall entitle the township assessor to his pay from the township treasury, and the county or district assessor from the county treasury, and that it shall be unlawful for any such compensation to be paid to any assessor without the presentation of such certificate from the auditor; in case the work of any assessor be not properly done, the certificate to be withheld by the auditor, and the returns to be referred back to the assessor for correction or completion, the deficiencies and needs by way of correction to be clearly pointed out by the auditor; the assessor to immediately make the corrections indicated and fully complete his work, and return the completed statistics to the auditor within ten days from the date of its reference to him for correction, the auditor being empowered to extend the time if deemed necessary; that in case any assessor fail to so correct, complete and return his work to the auditor within the time prescribed, he shall forfeit all compensation, and that the auditor be required to appoint, or see that the town board appoint, some suitable person to properly perform or complete the work, who shall be entitled to compensation therefor at the regular rate allowed assessors, and shall be paid in the same manner.

5. That as soon as the returns are received from the assessors by the county auditor, the latter be required to tabulate them in duplicate, in the manner prescribed by the State Statistician and upon blanks furnished by him, and to preserve one copy in his office, and transmit the other copy to the State Statistician, not later than the fifteenth day of September of each year.

6. In addition to requiring the State Statistician to compile, arrange, classify and illustrate the statistics as shall, in his judgment, best exhibit the resources and conditions of the different counties and the State as a whole, it is recommended that he be authorized to publish separately such parts as may be deemed proper for distribution among people that may be interested only in special subjects treated in the biennial report; for example, the papers on Coal, Sugar Beets, Crops and Sheep Industry, in the present report, should be published separately. Such a course is carried out under the Massachusetts law, and it would seem a wise and economical plan.

7. It would also be well to provide for the furnishing of copies of the report, in whole or in part, to each county officer, assessor, crop correspondent, or other person who fully complies with the requests of the Statistician for information for statistics, and also to those engaged in any of the industries who make full and complete answers to the questions asked. Such acts will encourage an interest in the work; also, in one sense, the statistics will be of value to the people of the State in proportion as the information contained in them is widespread.

8. A perusal of the reports of several other states shows that they experience much embarrassment on account of not having a

sufficient number of the earlier reports of their bureaus, several States indicating that the supply is entirely exhausted, while some complain that the number of later reports even, which are authorized to be printed, is altogether insufficient to supply the demand, and that the usefulness of the bureaus is very much crippled in consequence; in view of this experience of other States, it is recommended that a sufficient supply of all reports be printed.

9. It is evident that the less the gathering of statistics is associated with assessment for taxation the better will be the results; no other plan, however, than dependence upon assessors for agricultural statistics seems possible; but with other subjects the mails or personal visits by the Statistician will generally be more satisfactory. The Massachusetts bureau is required by law to send by mail on or before December 15th of each year, to the owner, operator or manager of every manufacturing or industrial establishment in the State a blank schedule of inquiries, which it is made the duty of the owner, operator or manager to answer by mail and certify to the same on or before the 20th of the following January, such answers to be for the year ending December 31st, or the last financial year of the establishment. The same act provides that the information furnished shall be kept secret so far as the names of the individuals or firms are concerned, and provides a severe penalty for the violation of such confidence by any officer or employe of the bureau. Some such act, with suitable penalties for failure or refusal to answer the inquiries, would no doubt greatly facilitate the work. The manufacturing interests in this State are so small at present that the required information could probably be gathered equally well and much cheaper by correspondence than by personal visits to the establishments, if laws are passed requiring the proper answers to be made. The Missouri bureau depends largely on the mails, and the law of that State imposes a fine of from \$100 to \$200 upon any owner, operator, manager or lessee of any mine, factory, warehouse, elevator, foundry or machine shop or other manufacturing establishment who neglects or refuses to furnish the information required.

10. Inasmuch as the value of statistical information depends largely upon its freshness and the promptness with which it becomes available to the public after it is collected, the last session of the Massachusetts legislature authorized its bureau of statistics to give out to the press the information it gathers as fast as completed, not waiting for the official publications. While there is no law forbidding such a course in North Dakota, it is suggested that it be specially authorized by law. In the opinion of the Commissioner, there can be no question as to the benefits to be derived from such a plan. The information reaching the public more promptly, will be later and more valuable than if awaited through the channel of official reports, and will also keep the people posted as to what the office is doing for them. The more frequently offi-

cial proceedings are spread before the public the better, in all departments of government.

THE COUNTIES AND THEIR REPORTS.

It is deemed best to give the following details of the reports from the several counties:

The books for the use of the assessors were sent to the auditors of all the counties between the 9th and the 14th of May—those counties most distant being supplied first, as rapidly as the blanks were completed by the printer.

Blanks for a report by the county auditor on the financial condition of the county, valuation, taxation, etc., were sent to each auditor in the State about the 15th of July, accompanied by a circular requesting that the blank be filled out and returned as soon as convenient. These blanks called for information as to previous years, as such information once put on record in accessible form, will hereafter always be available.

At about the same time a blank for a report regarding schools and school finances was sent to each county superintendent in the State, with a circular requesting the report as soon as the data for the school year ending June 30, was received from the school district and township officers.

Up to this date the summary of the assessors' work has been received from thirty out of the thirty-eight counties—many of them being reported more or less incomplete, and a few of them being received so late as to almost preclude their being incorporated in this report. The counties that entirely failed to send any such statistics are the following, viz:

Billings,	Cass,	Eddy,
Morton,	Richland,	Stark,
Towner.		

Emmons county forwarded a report, but it is so meager as to practically fail to represent the county.

Twenty-eight county auditors out of the thirty-eight have reported. The counties from which no report by auditors has been received are the following, viz:

Kidder,	La Moure,	McLean.
Morton,	Pembina,	Richland,
Stark,	Stutsman,	Towner,
Wells.		

Nineteen out of the thirty-eight county superintendents have reported. The counties that failed to send in superintendents' reports are the following, viz:

Benson,	Billings,	Bottineau,
Cass,	Griggs,	La Moure,
McHenry,	McIntosh,	McLean,
Morton,	Nelson.	Pierce,
Ramsey,	Ransom,	Richland,
Rolette,	Sargent,	Towner,
Ward.		

As a last resort, a blank was ruled for the necessary information, the names of the delinquent counties written in, and sent to the State Superintendent of Public Instruction, with the request that he supply the required information from his reports if possible; but as this was done at a very late date, it is presumed that time has not permitted him to do the necessary work.

Many of these reports have been received only after considerable correspondence and urging, and at a very late date, so as to prevent this office from making such an analysis of the returns as to convey the largest amount of information in the simplest form.

The following details as to each county are given:

BARNES COUNTY—All reports received, though quite late. The county superintendent's report was received November 7th, the financial part of which did not balance by some \$1,600, and the footings were altogether wrong. The report was copied and returned to the superintendent, with the request that the proper corrections be made and forwarded to this office at once, since which nothing has been heard from it.

BENSON COUNTY—Statistics and auditor's report received, but nothing from the superintendent.

BILLINGS COUNTY—Auditor's report received, but no statistics or superintendent's report. There are no agricultural interests in Billings county, and the assessors did not make returns of the stock raising to the auditor.

BOTTINEAU COUNTY—Auditor's report and statistics received. County superintendent's report was received July 27, very incomplete, and was returned with request that at least certain items, such as school receipts and expenditures, be supplied if possible. Although the same has since been specially requested, no answer has been received nor the report returned.

BURLEIGH COUNTY—All reports received.

CASS COUNTY—Auditor's report received, but no statistics nor superintendent's report.

CAVALIER COUNTY—All reports received.

DICKEY COUNTY—All reports received.

EDDY COUNTY—Auditor's and superintendent's reports received, but no statistics; and letters of inquiry about them are unanswered.

EMMONS COUNTY—Auditor's and superintendent's reports received, with statistics supplying the information asked in Schedule 2, of the assessor's book, and the first four out of the seventy-two items in Schedule 1, so that there are practically no statistics.

FOSTER COUNTY—All reports received.

GRAND FORKS COUNTY—All reports received.

GRIGGS COUNTY—Auditor's report and statistics received, but no superintendent's report.

KIDDER COUNTY—Statistics and superintendent's report received, but no auditor's report.

LaMOURE COUNTY—Statistics received, but no auditor's nor su-

perintendent's reports. The auditor writes that he mailed his report, when a second blank was sent him and another copy requested, and the request repeated early in November, but no reply is received.

LOGAN COUNTY—All reports received.

McHENRY COUNTY—Auditor's report and statistics received, but no superintendent's report.

McLEAN COUNTY—Statistics received, but no auditor's nor superintendent's reports.

McINTOSH COUNTY—Auditor's report and statistics received, but no superintendent's report.

MERCER COUNTY—All reports received.

MORTON COUNTY—No reports of any kind received. A letter from the auditor, published on another page, explains why there are no statistics. Two blanks for auditor's report were sent at different times, but nothing has been received from him nor the superintendent.

NELSON COUNTY—Auditor's report and statistics received, but no superintendent's report.

OLIVER COUNTY—All reports received.

PEMBINA COUNTY—Statistics and superintendent's report received, but no auditor's report.

PIERCE COUNTY—Auditor's report and statistics received, but no superintendent's report.

RAMSEY COUNTY—Auditor's report and statistics received, but no superintendent's report. The present superintendent, who assumed office October 1st, writes that no report or blanks for one were turned over to her by her predecessor, and that she fails to find in the office any data from which to make up the report.

RANSOM COUNTY—Auditor's report and statistics received, but no superintendent's report.

RICHLAND COUNTY—No reports of any kind received. The auditor writes that the statistics were in such incomplete shape that it is difficult to make anything out of them. Two blanks were sent for auditor's report at different times, but elicited no response. In reply to a second appeal to the superintendent, this office was informed that the superintendent was very sick, and that the report had been overlooked when his return was made to the State Superintendent.

ROLETTE COUNTY—Auditor's report and statistics received, but no superintendent's report. The superintendent writes that he mailed his report, and offered to make out and forward a second copy, and another blank was sent him for that purpose, but the report is not yet received. The auditor also writes that the first copy of his report was lost in the mails.

SARGENT COUNTY—Auditor's report and statistics received, but no superintendent's report.

STARK COUNTY—Superintendent's report received, but no auditor's report nor statistics. The auditor writes that the assessors'

districts are so large that they cannot cover the territory in the time prescribed, if they attempt to gather the statistics, and that the work was abandoned. Two copies of auditor's blanks have been sent, but without result.

STEELE COUNTY—All reports received.

STUTSMAN COUNTY—Superintendent's report and statistics received, but no auditor's report.

TOWNER COUNTY—No reports of any kind received, and letters of inquiry are not answered.

TRAILL COUNTY—All reports received.

WALSH COUNTY—All reports received.

WARD COUNTY—Auditor's report and statistics received, but no superintendent's report.

WELLS COUNTY—Statistics and superintendent's report received, but no auditor's report.

The reports that have been received from the above counties are embodied in the tables that follow, and where counties are not represented it is because reports have not been received.

COUNTY STATISTICS.

The following tables are based on the reports received from the county auditors, and, of course, those counties whose auditors did not report are not represented. Where these reports did not give certain items called for and other authorities are followed, those authorities are named in the foot notes. Where the acreage in crops for 1889 and 1890 was not given by the auditors, these items were taken from the statistics returned by the assessors; and where the assessors made no report, Commissioner Hagerty's report for 1889 is relied on to give the information for that year. The crop acreage includes that of millet, hungarian, timothy and other tame grasses. The tables present at a glance the complete condition of each county, and the presentation of much of the same matter in other tables affords a ready means of comparison. The figures given in these reports from the county auditors are believed to be entirely accurate.

SUGAR BEETS.

The last Legislature adopted the following concurrent resolution:

Resolved, by the House of Representatives, the Senate concurring, That the Commissioner of Agriculture and Labor be and is hereby instructed to secure the services of an expert, or in such other way as may seem in his judgment best, to thoroughly test, or cause to be tested, the qualities of the soil in the various parts of the State of North Dakota, in reference to its adaptability to the culture of the sugar beet, and to report to the Governor at as early a day as possible on the feasibility of the establishment of the beet sugar industry in our state.

In accordance therewith the Commissioner arranged with Prof. E. J. Babcock, professor of chemistry and mineralogy in the University of North Dakota, to make investigations in accordance with the terms of the resolution. Samples of soils were collected by him from different portions of the State, which are now being submitted to scientific examination to ascertain their chemical and physical qualities. The investigations are not yet completed, but the results will be submitted in a supplementary report in a few weeks.

To still further test the feasibility of the sugar beet industry in the State, some ten or twelve pounds of seeds of different varieties of the plant were obtained from the Department of Agriculture at Washington, and distributed to farmers and gardeners in different parts of the State—mostly in the Red River Valley, but extending west as far as Minot.

Also the Oxnard Beet Sugar Company, of Grand Island, Nebraska, early last spring sent fifty pounds of seed to this Department at Bismarck, for like distribution. The Commissioner being then at Grand Forks or Minneapolis, engaged in the destitution or seed wheat work, somebody at Bismarck informed the express company that there was no such Department in the State, and the seed was returned to Grand Island with that information to the senders. The Oxnards being desirous of testing the growth of the plant in North Dakota, afterward obtained the name of Hon. Harvey Harris, of Bismarck, and returned the seed addressed to him, requesting that it be distributed and samples of the product sent to Grand Island for analysis. Mr. Harris wrote to this office, kindly offering to turn over one-half of the seed. He was an-

swered by wire to send us what seed he could spare. Meanwhile he had turned the seed over to a local committee to distribute, and by the time the telegram reached him, it was all distributed except some five pounds, which was received at Grand Forks and distributed as the other seed had been. Efforts have been made to obtain both the names and addresses of the parties to whom seed was distributed from Bismarck, and samples of the beets for analysis, both of which have failed. This Department is therefore entirely ignorant of the result of the distribution of the forty-five pounds of seed at Bismarck.

Usually about four ounces of the seed was sent to each individual, with instructions how to plant and care for, a record being kept of the names and addresses of the parties to whom distributed, with the variety of seed furnished each. In the autumn another circular was sent to each party to whom seed was furnished, instructing about gathering, and asking that five samples be sent to this office for chemical analysis. But few responded. Seed had been furnished to twenty-nine different parties, besides packages being sent to county officers and others for distribution in counties where this office had no names of farmers or gardeners, with the request that the Commissioner be furnished the names and addresses of the parties to whom the seed was given out, a request that was complied with in but two instances. Of the whole number but nine sent samples for analysis, and one replied that the beets he planted (in Ward county) were destroyed by the severe drought. Of the nine samples, seven are from Grand Forks county, one from Traill and one from Ramsey.

Prof. Babcock has made the analyses, and submits herewith his report, which makes a very gratifying showing indeed. The Commissioner fully agrees with the expressed opinion of the Professor that there are great possibilities before the State in the sugar industry.

COST OF THE INVESTIGATION.

In making his investigations as to the soil, collecting specimens thereof, and obtaining general information as to the adaptability of the State to the growth of the sugar beet, Prof. Babcock incurred certain expenses which have not been refunded to him, besides practically donating his time to the State. The last Legislature failed, inadvertently no doubt, to make any appropriation for the expenses of the investigation it instructed this Department to make; but the work having been begun when this failure was discovered, it was deemed best to complete it and trust to the Legislature of 1891 to make the necessary appropriation.

Prof. Babcock's account against the State for the field work mentioned amounts to \$72, nearly all of which is for money actually paid out by him. He was engaged about twenty days in the work, reasonable compensation for which investigations by an equally competent man would be about \$6 per day and expenses.

As the Professor proposes to donate about \$100 worth of services for the benefit of the State, it is hoped that the \$72 will be promptly refunded him.

COST OF ANALYSES.

Before undertaking the sugar beet investigation, inquiries were submitted to the Professors of Chemistry in Minnesota State University and the Iowa State Agricultural College, both of which have ample facilities for such work, asking the probable cost of thirty analyses of beets and ten of soils, with carefully prepared reports thereon. The answers were as follows:

UNIVERSITY OF MINNESOTA.—For soils, \$15 for a single sample, and \$120 for ten samples. Could not analyze the beets this fall.

IOWA AGRICULTURAL COLLEGE.—Five dollars per sample for beets, and \$8 to \$10 per sample for soils, with the possibility that the beet analyses might be reduced to \$3 or \$4 per sample.

The latter in particular stated that in quoting price it was not intended to make any money out of the work, but that they intended to charge only enough to make fair compensation for time and material used.

Prof. Babcock has made these analyses and prepared exhaustive and valuable reports on the same, free of all charge to the State. It will be seen that he is donating in these analyses services which at a low estimate are worth more than \$100, and would cost the State at least that much to have the work done outside the State, and for which Prof. Babcock is entitled to charge a full price. This, with his work in collecting samples, makes his donation to the State at least \$200 in the sugar beet investigation. These statements are made that the work he is doing may be appreciated.

The following is his report on the sugar beet investigation:

UNIVERSITY OF NORTH DAKOTA,
GRAND FORKS, N. D., Jan. 8, 1891..

Hon. H. T. Helgesen, Commissioner of Agriculture for North Dakota,

SIR: As authorized by you, I have been conducting investigations on coal and sugar beets in North Dakota.

In presenting the result of these investigations I regret that they cannot be more thorough and extended, and in many respects more satisfactory. There has been no appropriation available for this work, which fact has made it necessary for me to advance the expenses both of time and money, and since I have no large amount of either of these commodities it has been impossible to make this report all I would like to have it.

The results of my investigations I have the honor of submitting herewith..

Respectfully,

E. J. BABCOCK,

Department of Chemistry and Mineralogy, University of North Dakota.

SUGAR BEETS.

A half century and more of sugar beet culture and manufacture in Germany and France has proved beyond doubt that the beet is especially well suited to the production of sugar.

These experiments have made the beet *the* sugar plant of Europe. Indeed, the sugar beet has already become the rival of cane; and, for the cooler climate of northern latitudes, is the only sure and profitable source of sugar.

To do best, the sugar beet, like all other plants, requires certain conditions of soil and climate especially adapted to it. The only way to determine where these requirements are best met is by experiment. Thus several localities in this country have proved well adapted to beet culture; and in these cases it is extremely encouraging to note that a higher per cent. of sugar is found in the juice than in that of the French and German beet. It may be further stated that in the United States, in all probability, the Northwestern States contain a larger area suited to beet culture than any other section. So the people of North Dakota have good reason to be interested in the inquiry as to the possibility of establishing the industry in this State.

For the purpose of answering the inquiry and determining some localities in the State best suited to this culture, beet seed was distributed by the Department of Agriculture last spring to a number of farmers in various parts of the State. During the summer I visited several of these localities, took samples of soil for tests or analyses, and made observations on the soil, sub-soil, etc. In the fall beets were sent in from some of these places, and were analyzed.

SOIL.

It is by no means easy to give an exact statement of all the requirements of a good beet soil which will be applicable to every case. A physical analysis will not tell with certainty; neither will a chemical analysis, though of great value, tell absolutely. There has been a considerable difference of opinion as to what are the requisites for a good beet soil. We shall consider only the most important of the necessary elements.

CHOICE OF SOIL.

Although most countries and climates permit its culture, there is, of course, a choice of soil if the highest development of saccharine qualities is desired.

The root of the beet penetrates deeply into the ground and is abundantly supplied with fine fibres, through which it derives its nourishment.

The beet dislikes a too clayey, tenacious soil; rocky or stony land must also be avoided, as it produces forked and misshapen roots, difficult to clean

and rasp. Soil charged with mineral salts is not suitable, for sugar beets easily absorb the saline and alkaline elements, which are obstacles to the extraction of sugar. Marshy, swampy lands and those in proximity to the sea are unfavorable to the beet. The beet flourishes best in deep, rich, loose, permeable soils suitable for grains.

Light, rich, sandy ground furnishes beets dense, easy of preservation and rich in sugar.

If the soil be a sandy one, it should have a rich loam and a good water-holding subsoil. Very thin soils, especially when they have a hard clay and gravel subsoil at but little depth, are not fit for beets. Such a soil would not supply good and sufficient food for the beet, would become too solidly packed about the root, make it obtrude above the ground, and thus cause a loss of sugar. Gravelly soils are bad, since they cause branching and consequent loss in the beet body, and because small pebbles are apt to cling to the forked root and injure the machinery in manufacturing.

A black soil warms more readily and retains heat better than any other color. This is favorable to the early development of the beet in the spring, which is important, as it tends to put the plant beyond the reach of summer drouth, its long root penetrating deeply enough into the earth to obtain the necessary supply of moisture. The black soil of Russia, which corresponds with much of our western land, is said by Prof. Witt, of Munich, to be acknowledged the best in Europe for the sugar beet.

It is quite probable that much of the soil of North Dakota that is not too new, will produce sugar beets of a high quality. The deep, black, mellow loam so characteristic of the soils of many localities in the State will give a soil easy of deep cultivation and readily warmed.

It is impossible to judge with certainty as to the fitness of a soil for growing beets, even by the best chemical analysis. The qualities of a soil may be varied much by the tiller. The only way to obtain positive knowledge as to the fitness of a soil for beets is by actually growing the beets on it, and determining if they are rich in sugar. Where it can be had, a chemical analysis is of great value, for it reveals the exact constitution of the soil, showing presence of those elements required, as well as those harmful, and at the same time affords a means of comparison with soils which have proven well fitted for beet culture.

I have been requested to make such analyses of samples of soils, with special reference to their adaptability to beet culture. The time has not been at my disposal to do more than a small part of this myself. The work has mostly been done, however, under my personal guidance, by Mr. Myron W. Smith, a graduate of this University, who is at present pursuing special studies in chemistry and other sciences. Credit is due Mr. Smith for his faithful work.

The following are the results obtained:

North Dakota Soils.	1. Lari- more.	2. Minot.	3. James- town.	4. Bath- gate.	5. Cassel- ton.	6. La Moure.
Water	2.33	2.51	} 6.65	3.40	9.88	2.95
Organic matter	7.78	8.21		13.41	10.22	9.20
Silica (Si O ₂)	76.81	69.87	80.47	61.98	58.66	69.84
Alumina (Al ₂ O ₃)	} 9.47	15.91	10.00	14.64	13.98	14.55
Iron (Fe ₂ O ₃)						
Lime (Ca O)	1.96	.53	2.73	2.80	2.32	1.70
Magnesia (Mg O)	?	.84	.86	.71	.91	.64
Soda (Na ₂ O)	.64	.48	.85	} .26?	.43	.76
Potash (K ₂ O)	.32	.32	.40		.82	.54
	98.71	98.17	101.46	97.20	97.07	100.18
Other Matter and Errata..	1.29	1.83	.....	2.80	2.98	
	100.	100.		100.	100.	
Soluble in cold water.....	0.148	0.105	0.094	0.153	.89	

For the purpose of comparison, I have taken, from United States Department Agricultural Bulletin No. 27, the following table of "Champion and Pellet," showing the composition of soils from different departments in the north of France in which beet-root culture is most extensively carried on, and of one from a similar section of Russia. Those numbered 1, 2, and 3 yielded beets of fair quality, containing 12 to 14 parts of sugar per 100 of juice, while that numbered 4 gave beets of bad quality. The last, that from Russia, is quoted by Walkhoff as being well suited to beet culture.

	1. Somme.	2. Nord.	3. Aisne.	4. Somme.	5. Kalinof- ska soil.
Organic matter.....	5.600	4.840	5.70	8.200	6.207
Silica	81.800	82.500	79.00	42.000	72.669
Alumina	7.240	8.620	8.50	3.91	9.974
Lime	0.570	0.420	0.25	23.220	1.930
Peroxide of iron.....	2.899	2.180	5.50	2.310	2.834
Phosphoric acid.....	0.070	.077	Trace	0.385	0.093
Potash.....	0.064	} 0.140	} Trace	0.044	2.047
Soda	0.095			0.050	0.914
Carbonic acid.....	0.400	0.700	2.85	19.050	1.280
Other matters.....	1.851	1.523	.....	0.823	2.022
	100.000	100.000	100.000	100.000	100.000

From the analyses of soils from nine beet growing districts in Europe, Dr. Grouren gives as an average the amount of matter soluble in cold water as 0.11+per cent. It will be seen that this is not far from the results obtained from the North Dakota soils. Thus we see that these samples show no excess of soluble salts. An excess of soluble salts would be injurious to the beet, since too much would be taken into the plant, and thereby cause extra expense to remove it from the sugar product.

So far as analyses, physical or chemical, show, the soil from many localities in North Dakota seem admirably adapted to sugar beet growth.

CLIMATE.

Another factor of great importance in beet culture is the climate. What was said in regard to soil may also be said about climate—no rule will apply to all cases. The beet has been grown over a large area, and under a variety of climatic conditions. This would naturally be so, since the sugar is stored in the root under ground, where it is protected from many of the sudden changes of temperature, and where the extremes are modified by the surrounding earth.

*“A mean summer temperature of 70° Fahr. for ninety days is sufficient to push the beet well to maturity, while a much higher degree than this tends to diminish its saccharine strength. The experience of beet growers in California indicates that in certain latitudes the beet can flourish with much less rainfall than has hitherto been deemed a minimum for its proper growth; but this is not conclusive evidence that in all localities so small a supply of moisture would be sufficient. In respect to the rainfall it is necessary to call attention to the fact that a wet September and October are more likely to injure a crop of sugar beets than a moderately dry July and August.”

A wet autumn succeeding a dry summer is almost certain to injure materially the saccharine qualities of the beet before it can be properly harvested.

In this regard it will be seen from the tables of precipitation that the two Dakotas are more favorably situated than Oregon and Washington. The rainfall in Oregon and Washington for September and October is 2.17, 3.25, and 2.24, and 4 inches, respectively, while in the two Dakotas it is only 1.11, 1.27, and 1.54, and 1.26 inches.

The importance of the slight rain fall in securing a safe harvest without danger of second growth is easily recognized.

From extended observations it has been thought that the climatic conditions most favorable to beet-root culture are confined to the north of the United States, in parts of New England, New York, Michigan, Wisconsin, Minnesota, and the Dakotas. Yet other localities have proven well suited to this industry; for example, places in Kansas, Nebraska and California.

The amount of rainfall required for the growth of sugar beets depends much upon the character of the soil. When the soil, like much of that of North Dakota, consists of a porous, deep, rich loam, which will permit the tap root to descend after moisture, and moisture to ascend to the root, and a sub-soil which will hold the water well, good beets can be grown with but a limited rainfall.

*From Bulletin No. 27, United States Agricultural Report.

Such a soil with such a subsoil will always best stand drouth. An *extremely* dry climate is not well suited to the beet; still it will stand a dry season rather better than many other plants, because its deep roots secure a large amount of moisture from the soil, while a plant of shallow root can get but very little.

* "In general, the amount of rainfall during the summer months in the Northern, Central, and Eastern United States is sufficient to secure a good growth, and therefore it may be said that, proper soil and locality being provided, beet culture might be undertaken in such localities with little fear of disaster from drought, save in a few exceptional seasons. In fact, with thorough under drainage and deep subsoil plowing, it would be possible to secure a good crop of beets in the regions indicated, quite independently of the variation in the amount of rainfall."

In the present state of our knowledge, it would not be safe to establish beet factories very far south of the mean isotherm of 70° Fahr. for the three summer months without a more thorough study of the character of the beets produced than has yet been made. The possibilities of finding localities south of this line where sugar beets may be grown with profit is not denied; but the necessity of further investigation is urgent. There are many places situated only a short distance south of this line, where the soil, water supply, cheap fuel, and other local considerations, supply peculiarly favorable conditions for beet culture; and in such places the industry would doubtless flourish, although the beet might not be so rich in sugar as when grown in a more northern locality.

The beet certainly prefers a cool to a warm climate.

It is a remarkable fact that while the cane increases in saccharine richness as it approaches the equator, the reverse is the case with the beet, which, up to a certain degree north or south, secretes more sugar as it approaches the poles. In Europe, the sugar beet is successfully grown between the 47th and 54th degrees north latitude.

Another important consideration in climate is the amount of sunshine. In the growing and storing period of the beet, warm, sunny days and cool nights enable the beet to manufacture and then to store up a large amount of sugar. These warm, sunny days and cool nights are especially characteristic of Dakota summers.

A dry fall and winter atmosphere aid greatly in preserving the beet. With damp fall and winter, the tendency is to a second growth, an early decay of the root, with a consequent degeneration of the beet, and a shortening of the milling season. There would be no trouble of this sort in our dry Dakota winter atmosphere.

From what has been said, it may reasonably be concluded that there is a large area in North Dakota well suited as to climate and soil to the culture of sugar beets.

ANALYSIS.

The following is a record of the results I have obtained from the analyses of several samples of beets sent me this fall.

The method employed was the volumetric. It would have been more de-

*Bulletin No. 27, United States Agricultural Report.

sirable to have had these samples polarized also, but this could not be readily done under the existing circumstances.

The samples were, probably, all harvested between the 1st and the 15th of October. In most cases the beets were grown on soils un-manured or not especially manured.

It is impossible from the information furnished me to give a reliable estimate of the yield per acre.

SAMPLE No. 1.

From Daniel Phillips, Niagara, N. D.

Variety, Dippe's Klein-Wanzeleben.

Sugar in juice.....	14.9
Degrees Brix (total solids)	19.1
Calculated co-efficient of purity.....	78.
Specific gravity of juice.....	1.079

SAMPLE No. 2.

From Geo. D. Lay, Emerado, N. D.

Variety, Lemaire's Richest?

Sugar in juice.....	14.20
Degrees Brix (total solids)	18.20
Calculated co-efficient of purity.....	78.00
Specific gravity of juice.....	1.075

SAMPLE No. 3.

From S. F. Mercer, Inkster, N. D.

Variety.....?

Sugar in juice.....	10.
Degrees Brix (total solids)	?
Calculated co-efficient of purity.....	
Specific gravity of juice.....	?

Beets had been allowed to grow out of ground too much.

SAMPLE No. 4.

From H. J. Crosby, Inkster, N. D.

Variety.....?

Sugar in juice.....	9.
Degrees Brix (total solids)	?
Calculated co-efficient of purity.....	
Specific gravity of juice.....	?

Beets had been allowed to grow out of ground too much.

SAMPLE No. 5.

From O. J. Robinson, Larimore, N. D.

Variety, Dippe's Vilmorin.

Sugar in juice.....	16.3
Degrees Brix (total solids)	20.0
Calculated co-efficient of purity.....	81.5
Specific gravity.....	1.083

SAMPLE No. 6.

From Z. M. Hunt, E. Grand Forks, Minn.

Variety, Florimond Despres Richest.

Sugar in juice.....	20.4
Degrees Brix (total solids)	27.6
Calculated co-efficient of purity	73.9
Specific gravity.....	1.116

SAMPLE No. 7.

From H. A. Noltimier, Churchs Ferry, N. D.

Variety, Dippe's Vilmorin.

Sugar in juice.....	18.8
Degrees Brix (total solids)	25.6
Calculated co-efficient of purity	73.4
Specific gravity of juice.....	1.108

SAMPLE No. 8.

From Budd. Reeve, Buxton, N. D.

Variety.....?

Sugar in juice.....	12.5
Degrees Brix (total solids)	18.4
Calculated co-efficient of purity.....	68.
Specific gravity of juice.....	1.077

SAMPLE No. 9.

From Wm. Matthie, Inkster, N. D.

Variety.....?

Sugar in juice.....	14.3
Degrees Brix (total solids)	20.
Calculated co-efficient of purity	71.5
Specific gravity of juice.....	1.083

The above nine samples gave an average of 14.5 per cent. of sugar. As usual, the samples richest in sugar were the smallest.

As a means of comparison, I give some results obtained in other places.

Twenty-three samples of beets grown in Nebraska gave an average of 11.99 per cent. of sugar, the highest being 20.28 per cent. (United States Department of Agriculture Bulletin 27, for 1890, page 184.)

Considerable success has attended the beet industry in certain places in Nebraska, especially at Grand Island. The average per cent. of sugar in beets from this locality, as well as others in Nebraska, would undoubtedly considerably exceed that for the twenty-three samples given above.

The analysis of ten samples of beets from California (supposed to be from beets used at the Alvarado factory) gave the high average of 14.38 per cent. sucrose sugar.

In Europe, a beet, the juice of which contains from 12 to 13 per cent. of sugar, is considered well adapted to the manufacture of sugar.

Thus we see that the results obtained from the beets grown in North Dakota this year are certainly very encouraging.

The following newspaper clipping may be of interest in this connection:

[Mandan Pioneer.]

Mr. Joseph Miller recently sent three beets to the division of chemistry, United States Department of Agriculture. One was raised on Custer Flats, one at New Salem, and one at Glen Ullin. The report of the Department shows the cane sugar per cent. of beets to be 13.78; cane sugar per cent. of juice, 14.5; ash per cent. of juice, 1.79; co-efficient of purity, 73.9; saline co-efficient, 8.10.

VALUE.

The introduction of an industry so extensive as the sugar industry cannot fail to bring with it untold wealth. Like bread, sugar is one of the prime necessities of every family.

The thrift of a state or community depends largely upon the diversity of its industries. Every new industry develops resources before unused, keeps at home, as well as brings in, a large amount of wealth, and adds in many ways to the general prosperity.

From an agricultural point of view, sugar beet culture is important as supplying another profitable crop. A crop of fifteen tons per acre would, at \$4 per ton, make the gross receipts \$60 per acre. It has been estimated that the average yearly returns to the farmer for his beet crop will be from \$50 to \$65 per acre, which would net far more than the ordinary grain crop. It would require an exceedingly large crop of wheat and a good price to bring more than \$15 per acre. Sugar factories would supply an independent home market, thus insuring a better and more uniform price than can be secured when dependence is put on the quotations of a distant city, as is the case with grain products.

It would further enlarge the local demand for other products by interspersing a manufacturing with an agricultural population.

The good effects would not be confined to the narrow district surrounding the factory. The money expended for beets and labor would be scattered to surrounding villages, would improve markets, and foster other branches of industry.

The beet is especially valuable as a fitting and cleaning crop. It is far better than fallowing, and thus becomes one of the very best forerunners of other crops. Beets should be cultivated in rotation with other crops. In this way the soil would not be degraded; but rather well fitted, as would be seen by the succeeding crop.

The quality of wheat raised after beets is better than that usually produced; the ears are larger and heavier, the straw stronger and not so liable to lodge. The berry is larger and brighter; its specific gravity is also greater, weighing from two to three pounds more than the ordinary wheat.

After the juice is used for sugar the beet pulp which remains is an admirable food for stock, on which, in the sugar districts of Europe, large numbers of cattle, sheep and swine are fed.

It is said that in some beet sugar districts, the number of cattle has increased from eight to ten fold since the introduction of the sugar industry.

The effect of the introduction of this industry into North Dakota would correspond to those just mentioned, but would probably be even more marked.

So far, experiments have shown the soil and climate of North Dakota to be well suited to the culture of sugar beets, the yield being good and the quality rich.

A matter of great importance to the sugar manufactory is its fuel, as a large per cent. of the running expenses are for this item. A large amount of lignite coal is used for this purpose in Europe. The immense beds of coal which exist in this State will afford a cheap and abundant supply of fuel, while the factories in turn will help to produce a coal market.

The value of beets and beet pulp would be of importance in North Dakota in the raising of sheep and swine; for any extensive introduction of the sugar industry would be almost sure to make a large increase in the number of swine raised; and as it is conceded that beet pulp is a remarkably good mutton producer, the establishment of the beet industry in this State would add a wonderful stimulus to the already fast developing sheep business.

The results which this report gives of investigations that have been made are certainly very encouraging, and it is hoped that these investigations are but the beginning of more extended ones.

The successful introduction of an industry of this character and of such magnitude demands time for careful and extended experimentation.

The coming year there should be a hundred or two hundred samples of beets sent for analysis from as many localities as possible. Let everyone who possesses a garden or farm, sow, and care for well, a patch of beets, and have samples of them analyzed. The beets will be excellent food for stock, so the labor and expense of the experiment will not be wasted.

If what has been said shall arouse the people of North Dakota to the possibilities which lie before them in the beet sugar industry, and to the further and more extensive investigation of which this subject is worthy, I shall not consider my work as labor lost.

E. J. BABCOCK,
Department of Chemistry and Mineralogy,
University of North Dakota.

[United States Department of Agriculture.]

PLANTING AND CULTIVATING SUGAR BEETS.

"The soil should be well drained and with a good exposure to light. It should be of loose texture and of average fertility. If the soil is deep and rich it may be plowed at once to the depth of twelve or fifteen inches. In less fertile soil it is best to plow to the depth of eight or nine inches and sub-soil to the depth of four or five inches. The land should be thoroughly harrowed and reduced to a fine condition of tilth before planting.

PLANTING.

For small patches the seed can be put in by hand. For large fields, drills can be provided. In general, the rows should be eighteen inches apart, and the seed planted so as to give one for about every three inches. When the beets begin to show four leaves they should be thinned, so they will stand at a distance of from six to nine inches apart in the rows, according to the fertility of the soil. This regular thinning of the beets is absolutely necessary to secure a high sugar content, and it should be completed before they show six leaves.

In very fertile soils, the beets should be left closer together, while in less fertile ones they should be left further apart. The object, in all cases, should be to grow a beet which will average a pound in weight after it is cleaned and topped.

CULTIVATION.

It is best to have the beets cultivated flat and not planted in ridges. Any method of cultivation which will keep out the weeds and keep the ground thoroughly stirred will be sufficient. It is important that the hoe should be used, especially at the time of thinning, and, to secure good results, this method of cultivation should not be neglected. The cultivation of beets should be continued about the same time as for ordinary crops and they should be laid by when the leaves begin to cover the ground thoroughly."

GATHERING.

At maturity the leaves of the beet, instead of looking green and vigorous, begin to have a yellowish tinge, to wither, and perhaps lop over or drop off. These signs indicate that the time for harvest is likely at hand. But the beet can still remain in the ground for a short time, and be the better for it, if there is no danger of a frost hard enough to chill the body of the beet. Care must be taken that the beet does not freeze, for this will lower the per cent. of sugar and hasten decay. It is equally essential that the beet be ripe when harvested, for unripe beets do not contain their full per cent. of sugar. They should not, however, be left in the ground till new leaves begin to grow, for this would degrade the beet. When the proper time has come to gather the beets, they should be pulled or dug, the leafy tops cut off and stored where they will be protected from freezing, and where it will not be damp enough or warm enough to cause second growth.

COAL.

Last winter, in response to a resolution of the House asking for information as to the coal mines of the State, some facts were hurriedly gathered and a report based thereon submitted. This report, of course, did not do justice to the subject, and presented only superficial information. The growing interest in developing the coal mines of the State seemed to call for something more—something in the nature of a careful and scientific investigation. So far as known, but one or two samples of North Dakota coal had been analyzed, and no geological investigations, with the coal fields specially in view, had been made. There was no authority of law for causing any expenditure for this purpose, but the interests of the State seemed to justify an effort to make some kind of an investigation; and in exceeding his authority in this matter, the Commissioner feels that he has rendered the State and the people some valuable service.

When arrangements were made with Prof. Babcock for collecting samples of soil and investigating the sugar-beet industry, it was ascertained that he could collect samples of coal along his route, make brief visits to some of the mines and make certain geological investigations with reference to the coal of the State, at practically no additional expense. It was decided to have him do so. He secured a fine collection of samples of coals, clays, etc., made valuable observations, and did something toward ascertaining the coal area of the State.

His samples collected, it was deemed that the value to be derived from an exact investigation would justify a chemical analysis of them. Prices for such work were obtained from the Minnesota State University and the Iowa State Agricultural College, as in the case of the sugar beets and soils, which were as follows:

Minnesota State University—For thirty samples of coal, \$180.

Iowa State Agricultural College—Three dollars per sample.

Prof. Babcock has analyzed twenty samples, and prepared a full and careful report thereon, which has been undertaken by direction of this office, and for which he asks the very moderate sum of \$60, amounting to \$3 per sample analyzed, including the preparation of the report. I trust that provision will be speedily made for the payment of the amount.

His paper on the coal is as follows:

To the Hon. H. T. Helgesen, Commissioner of Agriculture for the State of North Dakota:

As authorized by you, and according to your wishes, I have on hand an investigation on the coal and coal deposits of North Dakota.

The work was begun last summer, when I visited numerous localities where coal occurs, making observations on the geology, etc., and securing samples of coal.

Very Respectfully,

E. J. BABCOCK,

Department of Chemistry, University of North Dakota.

COAL OF NORTH DAKOTA.

The existence of extensive beds of coal in North Dakota has been known for some time. New finds are continually extending the known area of coal deposit, and still there is undoubtedly a vast extent of coal in North Dakota not yet absolutely known. Indeed, the coals of that part of the continent lying west of the Missouri River are only just beginning to attract that attention they deserve. It is quite probable that the coal deposits of North Dakota are of the eastern flank of the Rocky Mountain coal range, which has been followed over 500 miles north and south. Whether the outcrops discovered are fragments of one large coal basin, which has been broken up by water action and upheavals, or covered with newer formations, or whether they are the deposits of numerous woody swamps of the same geological period, we may not determine. But it will suffice to say that North Dakota alone has, without doubt, enough coal to supply herself and the less fortunate neighboring states for years, probably centuries, to come.

THE GEOLOGY.

The geology of American coal may be summarized as follows:

CARBONIFEROUS, to which belong anthracite and eastern bituminous region. The principal deposits, both as regards extent and quality, embrace the Appalachian, Central, West Central, and Michigan district.

JURA-TRIASSIC, which is of but small area.

CRETACEOUS and TERTIARY, which cover a large area, and embrace the Western Plains, Rocky Mountains, Mt. Diablo, and Washington systems, etc. It is to this last group that Dakota coal belongs.

The geology of the coals of the Carboniferous and the Jura-triassic periods are undisputed. But that of the Western Plains, Rocky Mountains, etc., is involved in much doubt. It has been by some held to be Cretaceous; by others of Eocene; and by still others of Miocene-tertiary origin. So far the palæontology shows the fauna to be allied to the cretaceous, while the flora is nearer Eocene or Miocene. Dr. Le Conte thinks the coal beds of this area mark the transition between the Cretaceous and the Eocene; that "while it was depositing, the changes of physical geography and climate which closed

the Cretaceous and inaugurated the Tertiary had already been accomplished; but cretaceous types still lingered, ready to disappear. In this group, therefore, Cretaceous and Tertiary forms are more or less mingled;" and thus the newly formed land would be covered with Tertiary vegetation, while the Cretaceous animals would hold out for awhile. The fossils, so far as I am aware, are almost exclusively plant forms, and those, too, resembling much the varieties now existing, and doubtless are of Tertiary origin. So the geology of Dakota coal is not exactly fixed; but the deposits, I am inclined to think, belong to the Tertiary period.

MODE OF OCCURRENCE.

The general direction of the coal deposit in North Dakota seems to be north and south. The seams generally outcrop along the banks of streams or on the side of the bluff leading to a valley, the direction of which they follow. There may have been a general continuity of deposit, but it seems more likely that these different deposits were made in so many elevated Tertiary marshes. There are three seams distinctly noticeable, indicating a longer or shorter period of deposition, or a greater or less activity in vegetable growth, corresponding in each case to the thickness of the deposit. The lower seam is the one generally worked, and it appears from fifty to 200 feet below the surface. The seam varies in thickness from seven to twenty feet. It is underlaid by fire-clay. From fifteen to twenty-five feet above the lower seam is another, one and one-half to three feet thick. The formation between this and the lower seam is principally of clay, with a layer of sand in some cases. From fifteen to thirty feet above this is a third seam of from one to two feet in thickness. This is the uppermost, and is covered with clay, sand or gravel, clay and soil which frequently bears drift boulders. This layer probably varies from ten to fifty feet below the surface, but in some cases it appears to have been entirely washed out.

There are indications of one or more layers below the one generally worked. If a seam of workable thickness should be discovered lower, it would doubtless be more valuable, for the quality improves with the depth of deposit.

It is not to be expected that anthracite coal will be found in North Dakota, even though deeper seams be discovered. The geology of the country will afford nothing better than the bituminous variety. It is well agreed that the anthracitic varieties are associated with folding and metamorphism of the strata. In the universally folded and metamorphic Laurentian rocks graphite is found. "In Pennsylvania, in the strongly folded and highly metamorphic eastern portion of the field the coal is anthracitic; while, as we go westward, and the rocks are less and less metamorphic, we find the coal to be more and more bituminous, until, where the rocks are horizontal and unchanged, the coal is always highly bituminous. The same has been observed in Wales; anthracite is always found in metamorphic regions, and the coal is more and more bituminous as the rocks are less and less metamorphic."—*Le Conte*.

Of course anthracitic coal may be found in a local trap overflow or small eruptive district. So far as I am aware there is no considerable dip of strata in the coal districts of North Dakota, save in exceptional cases; for example,

in the Turtle Mountains. So there cannot be expected more than the usual improvement in quality into bituminous which increase in depth of deposit might make.

Numerous rumors of oil have been afloat, but I have not been able to see any indications of such, nor could one reasonably expect oil in a district with such formations and physiography.

VARIETIES AND CHARACTERISTICS.

The coal varies somewhat in its physical as well as its chemical properties in different localities. In most cases the cleavage planes correspond to the planes of lamination and are parallel. All samples have a general appearance between that of cannel and true lignite, and are more or less friable when exposed to the action of air and water. In one or two cases, coals are found to approach, in physical appearance, a true bituminous coal.

A decided difference is noticed in the physical features of different seams. The upper one or ones, which are too thin to be worked, are more strikingly lignitic, being of a brownish color, of more woody structure and more friable; while the lower seams are of a deeper black color, harder, more compact and less friable. There is a great improvement in the quality as the depth at which the coal is found increases.

It may be helpful to notice a few general points as to the classification of coals before proceeding with the analysis.

The variety of coal depends mainly upon the purity, and the proportion of fixed carbon and volatile matter. Coal consists chiefly of organic matter, but contains varying proportions of inorganic or incombustible matter, which was originally in the sap and framework of the plant, or which was carried in as foreign material during the period of deposition. When coal is burned, the organic combustible matter is consumed and passes away as gas, while the inorganic part is left behind as ash. The relative proportion of the ash determines largely the purity. We may have a coal of 1 or 2 per cent. ash. If no more than 5 per cent. is ash, then we may consider the coal quite free from foreign impurities. We may have coal of 10, 15, 20, or even 30 or 40, per cent. ash. If more than 10 per cent. ash is found, the coal is impure; that is, mixed with foreign matter during or after its accumulation. The most important of the other impurities existing in coals is *sulphur*. It is objectionable for almost every purpose for which the coal may be used. In heating stoves it tends to lessen the heat and gives off obnoxious gases; it corrodes grates and flues; if used in iron smelting, it degrades the iron; and in gas-making it is harmful. If sulphur is present it is usually as pyrites of iron.

The combustible matter of coal is partly fixed (not easily driven off as gas) and partly volatile (easily converted into gas). When coal contains from 90 to 95 per cent. fixed carbon, it is classed as anthracite. If the combustible matter contains from 80 to 85 per cent. fixed carbon, it becomes semi-anthracite. These are especially good for the rapid generation of steam for locomotive boilers and the like, and hence are sometimes called steam coals. If there is from 60 to 70 per cent. fixed carbon, we have the ordinary bituminous coal. If the fixed carbon runs below 50 per cent. and the volatile matter runs to 50 per cent. or more, we get the highly bituminous fusing coal.

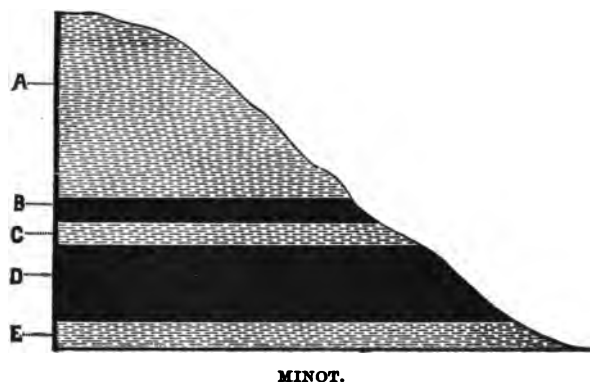
This variety is often especially well adapted for gas and coke manufacture, while a still less per cent. of fixed carbon gives us true lignite, then peat, and finally wood.

LOCAL DESCRIPTIONS AND ANALYSES.

A few miles northwest of Minot, Ward county, coal is found outcropping along the edge of the bluffs that rise from the valley of the Souris River to the prairie. Coal has been dug from several openings on either side of the valley. Indications are that coal is quite continuous along the valley for some distance. The Foote, Colton, and North Dakota Coal & Mining Company's mines are located in this valley. A description of the last named will serve well to indicate the character of the deposit in this locality. This mine is located about three miles west of Minot, near the trestle of the Great Northern Railway.

Two nearly parallel and horizontal layers appear on the side hill. The lower of these is the one worked. Into this seam horizontal shafts have been run several hundred feet under the hill. The layer is from ten to twelve feet thick, and is quite free from shale or other impurities.

The following diagram will show the formation:



*A—Clay, sand, gravel and soil, with a few boulders on the surface; about forty feet.

B—Thin layer of light, shaley coal, six to eight inches thick.

C—Fine clay; thickness, one-half foot.

D—Coal; ten to twelve feet.

E—Fine grey fire-clay.

NOTE.—*The measurements, in all cases, are only estimated; not exact. In many cases the stratification could not be determined with certainty, but is supposed to be as indicated.

Analyses of two samples from the mine gave:

No. 1. FROM NORTH DAKOTA COAL & MINING CO., MINOT, N. D.

*Water and volatile matter, per cent	55.22
Fixed carbon	39.66
Ash	5.12
	100.00

No. 2. LOCATION SAME AS No. 1.

Water and volatile matter, per cent	53.41
Fixed carbon	41.09
Ash	5.50
Sulphur	.25

*NOTE.—Nearly all the samples analyzed had been out of the mine about three months when analyzed, and during that time had been kept indoors.

COLTON MINE.

This mine is about three miles up the Souris valley, northwest of the North Dakota Coal & Mining Co.'s mine. The diagram given above well represents the formation at the Colton mine. This mine is quite well started. Horizontal shafts run from the entrance probably 200 to 300 feet under the hill.

Analyses of two samples of coal from the Colton mine are as follows:

No. 3. FROM MINOT, COLTON MINE.

Water and volatile matter, per cent.....	52.25
Fixed Carbon	41.62
Ash.....	6.13

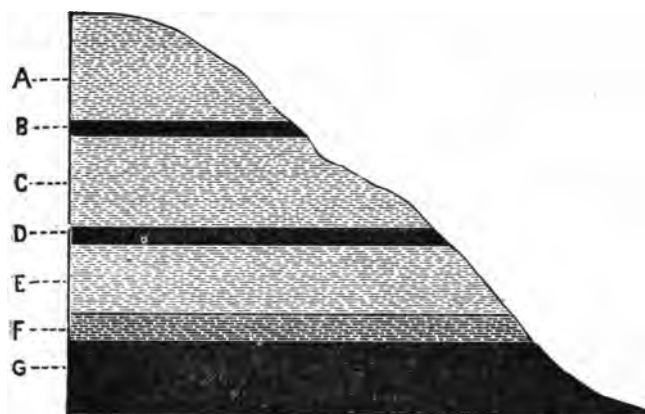
No. 4. LOCATION SAME AS ABOVE.

Water and volatile matter, per cent	42.50
Fixed carbon.....	48.85
Ash	8.65
Sulphur	.06

WILLISTON, BUFORD COUNTY.

Going west from Minot coal again appears in the western part of Flannery county and in Buford county. About Williston there is a considerable deposit. This village is located near the banks of the Missouri River. Numerous valleys make back from the river through a rolling prairie. The hillocks and knobs along the valleys vary from rolls to elevations of 200 feet or more. They are for the most part of clay and sand and gravel, covered with a black soil six inches to ten inches in depth, over which boulders are here and there scattered. It is along these ridges that coal is found. There are outcrops, I am told, north, east and southwest of Williston. The one most worked is about nine and one-half miles east of Williston, not far from the Great Northern Railway. It is known as the Taylor mine.

A section showing the formation is here given:



SECTION FROM TAYLOR'S MINE, WILLISTON, N. D.

- A—About twenty feet clay, gravel, etc.
- B—About one foot coal?
- C—About twenty feet clay.
- D—About one foot to one and one-half feet coal.
- E—About ten feet clay, etc.
- F—About two feet fine, compact clay.
- G—About eight to ten feet coal.

Analyses of two samples of coal from this mine gave:

No. 5. FROM TAYLOR'S MINE, WILLISTON, N. D.

Water and volatile matter, per cent.....	51.59
Fixed carbon.....	43.99
Ash.....	4.42
Sulphur.....	0.17

No. 6. LOCATION SAME AS ABOVE.

Water and volatile matter, per cent.....	52.23
Fixed carbon.....	43.76
Ash.....	4.01

Nearly directly south of Williston, at Medora, Billings county, on the Northern Pacific Railway, coal is seen in two or three thin layers. Although I have no knowledge of a deposit of any considerable thickness, still this region is an especially interesting one. It is on the border of the "Bad Lands." In many places fire has burned out the coal and baked the clay into a sort of brick rock, sometimes resembling scoria, which covers many hillsides. Water has washed away the yielding clay and left deep gorges and thousands of steep hillocks of fantastic shapes.

DICKINSON COAL.

Forty or fifty miles east of Medora we again begin to see outcrops of coal. About one-half mile east of Dickinson, on Mr. Lenneville's place,

coal is gotten for private use by digging into the side hill. This deposit is not developed, being only surface worked. The coal seam is about ten feet thick, covered with twenty or more feet of clay, etc.

An analysis of a sample of this coal is as follows:

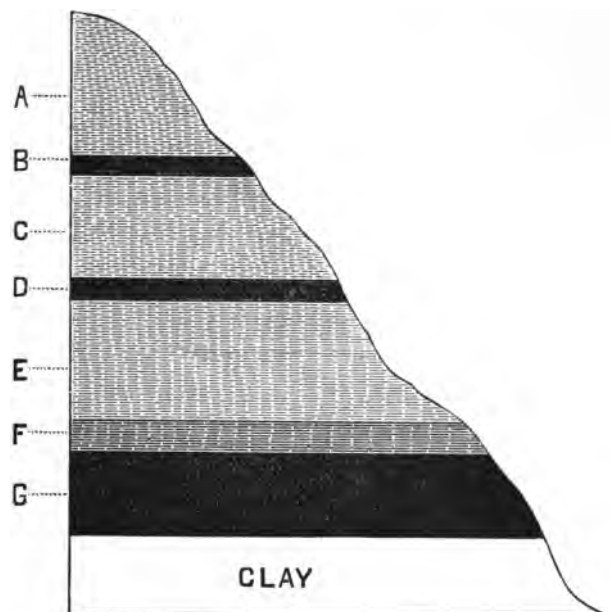
No. 7. FROM MR. LENNEVILLE, DICKINSON, N. D.

Water and volatile matter, per cent	52.59
Fixed carbon.....	43.02
Ash.....	5.39

LEHIGH MINE.

Four or five miles east of Dickinson is the Lehigh mine. Here coal appears along a little valley from 100 to 200 feet below the surrounding prairie, and is mined by tunneling into the side hill. The seam worked is from eight to fifteen feet in thickness. Above this may be found one or two thin layers. This mine seems well located and is quite extensively worked. The supply is doubtless large. The coal is reached as usual by horizontal tunnels run in from the side of the hill.

The following section may give an idea of the formation:



- A—About twenty-five feet clay and gravel.
- B—About one foot of coal?
- C—About twenty-five feet of clay, etc.
- D—About two feet of coal.
- E—About thirty feet of clay, etc.
- F—About three to five feet of compact (fire) clay.
- G—About eight to fifteen feet of coal.

The analyses of two samples of this coal are as follows:

No. 8.

Water and volatile matter, per cent.....	48.61
Fixed carbon.....	44.39
Ash.....	7.
Sulphur.....	.35

No. 9.

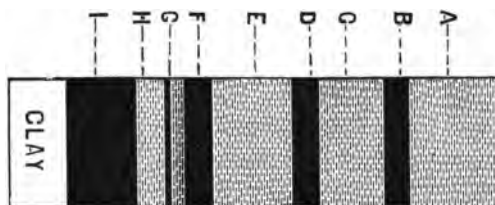
Water and volatile matter, per cent.....	52.96
Fixed carbon.....	41.01
Ash.....	6.02

The clay deposits of this vicinity will doubtless prove of considerable value. The clay is very clean and fine. A sample from one deposit grinds to a red clay, and burns to a very fine, firm, red brick stone. A great part of the overlaying fire-clay burns to a good, firm, white brick stone, and seems well suited for pottery purposes.

SIMS, MORTON COUNTY.

This place is located in a valley perhaps 100 or 200 feet below the level of the prairie. In the banks along the valley from Sims to New Salem, coal is frequently seen. At Sims there are three or four places from which coal has been mined. Samples were secured from the Sims Mining Company's mine and from the North Dakota Coal Mining Company's mine.

The following section will show the formation in this locality:



SIMS' MINING CO.'S MINE.

- A—Clay and gravel.
- B—Thin layer of coal?
- C—Clay and gravel.
- D—Coal, one-half foot thick. Probably thirty feet above the thick layer I.
- E—Clay.
- F—Coal, about one foot thick. Probably ten feet above the thick layer I.
- G—Sand and clay.
- H—Compact clay.
- I—Thick layer of coal—the one worked.

Analyses of two samples from this mine gave the following:

No. 10. FROM F IN SECTION.

Water and volatile matter, per cent.....	40.94
Fixed carbon.....	42.23
Ash.....	16.83

No. 11. FROM THICK LAYER I IN SECTION.

Water and volatile matter, per cent	48.62
Fixed carbon	41.81
Ash	10.07
Sulphur	.30

Analyses of two samples from the North Dakota Coal Mining Co's. Mine, of the same place, Sims, give the following result:

No. 12. NORTH DAKOTA COAL MINING CO., SIMS, N. D.

Water and volatile matter, per cent	48.59
Fixed carbon	43.60
Ash	7.81

No. 13. LOCATION SAME AS ABOVE.

Water and volatile matter, per cent	47.20
Fixed carbon	44.58
Ash	8.22
Sulphur	.28

MANDAN.

A sample of coal was given in for analysis, said to have been mined eleven miles north of Mandan, on land belonging to Mr. Blauch. It was simply picked from a surface out crop.

The analysis is as follows:

No. 14. MR. BLAUCH'S, NEAR MANDAN.

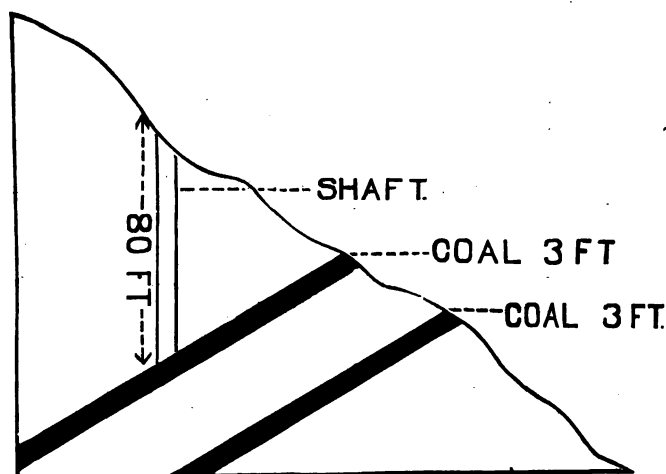
Water and volatile matter, per cent	49.47
Fixed carbon	43.91
Ash	6.62

TURTLE MOUNTAINS.

Coal again appears in the *Turtle Mountains*. It is quite possible that coal may underlie belts of country extending east and north of Minot and following the Souris river and thence eastward into the Turtle mountain district.

Near *Dunseith*, Rolette county, coal has been found on the southern slope of the hills. At this place a shaft has been put down eighty feet on the side of the bluff, and a layer of coal three or four feet was struck; below this, on the side hill, an out crop occurs.

At the time I visited the place, the opening to the coal was closed so the nature of the formation and the dip of the deposits could be obtained only from inquiry. The coal of both upper and lower layers has an inclination of about 30 degrees toward the hills. The following will give an idea of the deposit, according to the information given me.



A sample given for analysis, and said to be from the shaft, gave the following:

No. 15.

Water and volatile matter, per cent.....	36.06
Fixed carbon.....	57.74
Ash.....	6.20
Sulphur	1.11

A sample that I picked up from a pile of refuse which had been mined and exposed to the weather for three years gave:

SAMPLE No. 16.

Water and volatile matter, per cent	44.79
Fixed carbon.....	40.56
Ash	14.65

It will be seen from the analysis of the first mentioned sample, No. 15, that it is of superior quality. It might, in fact, be considered a very fair bituminous coal. It gives a fine grained solid coke. If any quantity of this coal can be gotten it will have a ready market at a fair price.

If the coal layers of this deposit dip in the direction and at the angle stated, it is not strange that such coal or even better should be found. There is good possibility that there are layers of coal deeper than those indicated in the diagram. This region, as well as others, deserves a more thorough investigation than has ever been given it.

The foregoing localities are all I have been able to visit. These are for the most part on or near some line of railroad. All of the deposits mentioned in this report will constitute but a very small portion of the whole coal field of North Dakota. But these will serve to indicate the area in this State over which coal may extend.

The following are analyses of samples sent in from places not already mentioned, and which I did not visit:

No. 17. Sample received from A. P. Folsom, New England City, Hettinger County, N. D.

Water and volatile matter, per cent.	47.62
Fixed carbon.....	50.67
Ash.....	1.71
Sulphur.....	.33

This coal cokes. But it is not a very good coke. Withal, the sample was a very good one. It will be noticed that the ash of this coal is remarkably small.

No. 18. Sent in for analysis by the North Dakota Coal & Mining Company, Coal Harbor, McLean county, N. D. (Taken from a depth of 183 feet and mined for three years.)

Water and volatile matter, per cent.	47.27
Fixed carbon.....	45.77
Ash.....	6.96
Sulphur.....	.22

No. 19. Sample received for analysis from Thos. Dodsworth, Sykeston, N. D. (Sample from Pony Gulch mine, near western border of Wells county.)

Water and volatile matter, per cent.	45.75
Fixed carbon.....	49.03
Ash.....	5.22

No. 20. Sample sent by Thos. Bartnow. Location, Township 147, Range 84, Section 15. From an eleven-foot vein.

Water and volatile matter, per cent.	45.89
Fixed carbon.....	48.47
Ash.....	5.64

The twenty samples of North Dakota coal analyzed give an average of—

Water and volatile matter, per cent.	48.37
Fixed carbon.....	44.71
Ash.....	6.92
Average of samples analyzed for sulphur.....	.34

For the purpose of comparison, I give below averages of analyses from several coal districts.

Ohio coals.—Average of twenty analyses. (Ohio Geological Survey, 1885.)

Moisture and volatile matter, per cent.	36.65
Fixed carbon.....	58.10
Ash.....	5.12

Indiana coals.—Average of fifty-two analyses. (Indiana Geological Survey, 1873.)

Moisture and volatile matter, per cent.	42.21
Fixed carbon.....	51.20
Ash.....	6.02

Iowa coals.—Average of sixty-four analyses. (Iowa Geological Survey, 1870.)

Moisture and volatile matter, per cent.	47.81
Fixed carbon.....	45.42
Ash.....	6.77

RELATIVE VALUE.

As has already been said, the coal deposits of this State cover a very large area. No very exact statement on this point can be given. There are, no doubt, several thousand square miles of coal. There is, therefore, an abundant supply, the value of which only remains to be shown.

The value of coal varies widely according to the use to which it is to be put. So no statement can be given to cover all cases. For one purpose a caking, highly volatile coal is desirable; for another, a free burning coal with little volatile matter is preferred. And so on, different uses demand coal of a special character. However, "it must always hold true that local supplies of mineral fuels, whatever their quality, must be the chief dependence of communities, because of their proximity to the consumer." Lignites even of inferior quality are coming into increasing use in many localities. "The statistics of Germany and Austria show that more than 22,000,000 tons of this fuel are annually used in those countries for domestic and other purposes." The North Dakota coal, though lignite, is of a high grade and in one or two cases may be classed as bituminous.

For general heating purposes, the value of coal can usually be estimated approximately by the amount of fixed carbon it contains. By referring to the analyses it will be seen that the fixed carbon in North Dakota coal analyzed, averages 44.71 per cent.; that of Iowa, 45.42 per cent.; that of Indiana, 51.20 per cent.; and that of Ohio, 58.10 per cent.

Using this method of determination, the heating power of one ton of North Dakota coal will equal $\frac{11}{12}$ of a ton of Iowa coal, $\frac{11}{12}$ of a ton of Indiana coal, and $\frac{11}{12}$ of a ton of Ohio coal.

As compared with wood, there is no doubt that, for ordinary purposes, this coal is far superior at reasonable prices. It is to be hoped that little timber will be burned in North Dakota where so much better and usually cheaper fuel can be secured. In some localities it is sad to notice how much wood is cut for fuel. Every tree should be encouraged to grow. If tree culture were what it should be in North Dakota the good resulting would be of inestimable value.

For gas and coke manufactures and for smelting purposes only one or two of the samples were well adapted. (Sample No. 15 seems quite well suited to these uses.)

For heating locomotive boilers, much of this coal might not be economical for general use since it would, perhaps, be difficult to arrange a locomotive grate, draft, etc., suited to other kinds of coal, which would not waste the lignite.

For general manufacturing and heating purposes, in which most of the fuel is used, the coal of North Dakota is well adapted. By the use of native coal, hundreds of thousands of dollars might be kept within the state and encouragement given to the development of an important resource.

POINTS OF ADVANTAGE.

The purity of a fuel is a very important element in determining its value. A difference of 2 or 3 per cent. in the earthy matter of two coals may be the source of a very serious difference in their final value. North Dakota coals

are almost always very free from earthy matter as seen from the amount and character of their ash.

"Of all the substances of a hurtful kind commonly to be found in coals, sulphur, usually combined with iron forming minutely disseminated sulphuret of iron, is by far the most injurious. The proportions in which it prevails in different coals are various, many beds revealing scarcely a trace, while others again contain as much as 3 or 4 or even 6 per cent. of this deleterious constituent."

From the analyses of Ohio coals, published by Prof. Wormley, the average amount of sulphur in 25 samples was 2.04 per cent. Of the coals of Great Britain, an analysis made a few years since for the British Admiralty, the average amount of sulphur in thirty-seven Welsh coals was 1.42 per cent.; of twenty-eight from Lancashire, 1.42 per cent.; eight Scotch coals, 1.45 per cent..

It will be seen by reference to the analyses of North Dakota coals that the average is .34 per cent. sulphur, while the lowest shows but little more than a trace. This remarkable freedom from sulphur is of no small advantage to any coal.

Another important matter in the economics of coal is the character of the ash. In many coals a large amount is lost in ash clinkers. For all purposes it is desirable to have a small clinkerless ash. This is especially desirable in certain cases where intense or melting heat is required. A small ash of reasonably white color is a good characteristic. The ash of North Dakota coal seems very free from clinkers, of good color, and is moderately small in amount.

In connection with the coal deposits in many localities in the State there are extensive beds of clay of very fine quality which promises to give rise to an important industry in the manufacture of certain pottery ware, tiles, brick, artificial stone, etc.

From what has been said it may justly be concluded that the coal of North Dakota is of inestimable value to the people of this State.

With the increase of population, this abundant and cheap supply of fuel will bring in new industries and furnish supplies of great value to vast regions otherwise scantily provided with fuel.

Respectfully submitted,

E. J. BABCOCK,

Dept. Chemistry and Mineralogy, University of North Dakota..

COAL STATISTICS.

The coal mines of the State are not, as a rule, sufficiently developed to furnish complete statistics. Many are worked only by parties procuring coal for their own use, while others are worked only a short time in fall or winter to supply the local demand of the sparsely settled country around them. A few are worked regularly, and the coal shipped to distant parts of the State, though seldom, if ever, outside the State.

Nineteen reports were received from different mines, located in the counties named, viz.:

Billings	1
Burleigh	1
Emmons	1
McLean	2
Rolette	1
Ward	3
Buford	2
Church	1
Hettinger	1
Morton	4
Stark	2

A number of the mines made only partial reports, the number of tons mined annually being given by but nine out of the nineteen mines reporting. The following table is the summary of the reports received.

STATISTICS RELATING TO COAL MINING.

COUNTIES.	Number Tons Coal Mined Annually.	No. of Days in Operation for Year Ending June 30, 1890.	Average No. of Employees.	No. of Employees at Date of Making this Report.	Strikes.		Average Thickness of vein Worked, in Feet.	Average Depth of Vein Below Surface, in Feet.	Price Per Ton Paid for Mining.	Total Cost of Mining Per Ton.	Capital Invested.	Weekly Wages of Employees When Fully Employed.			
					No. of Strikes During Year.	No. of Men Engaged in Strike.						Miners.	Inside Day Laborers.	Outside Day Laborers.	Hours of Labor Weekly When Fully Employed.
*Billings	3,500	120	10	...	...	...	9	250	...	\$ 1.05	\$ 6,000	...	...	...	...
Buford	500	90	4	4	1	5	7½	9	\$.60	.75	300	...	...	...	60
Burleigh	...	60	4	...	...	...	2	37	1.37	2.00	100	...	...	...	54
Emmons	...	...	...	...	...	...	...	3	.75	1.00	...	...	...	...	...
Hettinger	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...
*McLean	850	97	7	9	...	...	5	21	.77	.90	450	\$12	...	...	60
Morton	...	...	...	...	...	...	3	85	...	...	1,500	...	...	...	...
Rosette	100	90	19	13	...	...	12	82	.50	.72	50,050	12	\$12	\$12	...
Stark	3,550	120	14	10	...	...	9¼	105	.63	.95	5,700	...	...	...	60
Ward	...	...	2	2	...	...	4	12	...	.75	500	...	...	...	...
Wells	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals and Aver.	8,500	96	60	38	1	5	6½	58½	.77	1.02	\$ 64,600	\$12	\$12	\$12	58½

* Undeveloped except for private use.

THE SHEEP INDUSTRY.

The general interest taken in sheep husbandry, especially in the portions of the State where crops have been light for some years, together with the current reports of large accessions to the number of sheep in nearly all portions of the State, and the western part especially, induced this Department early in October to send out a circular to the stock men and others likely to be posted, whose addresses could be procured—chiefly in the western part of the State. The object was to obtain as late and reliable information as possible regarding stock raising, with especial reference to sheep. The circular was as follows:

GRAND FORKS, N. D., Oct. 9, 1890.

DEAR SIR: If you are not interested in stock raising, will you kindly hand this to some one that is, and who will answer the questions as fully and accurately as possible? I desire them answered promptly, for publication in the newspapers or in my Biennial Report, or both, as may seem best, and the answers sent me as soon as possible in the enclosed stamped envelope:

- (1.) To what extent is stock raising carried on in your county?
- (2.) What kind of stock is mostly raised—cattle, horses or sheep,—and is it high-bred or common stock?
- (3.) Has the business been financially successful?
- (4.) Is there a tendency to increase the business in your county? What is its outlook for the future?
- (5.) What kind of stock seems to be most profitable?
- (6.) Is the pasturage sufficient?
- (7.) Has there been a material increase in the number of sheep in your county since May last? If so, what do you estimate as the number brought in?
- (8.) What increases in sheep do you know of elsewhere in the State?
- (9.) In your judgment can sheep husbandry be made profitable in the portions of the State where grain has produced but a light crop during the last three years?
- (10.) Do you know of any serious draw backs to sheep raising? If so, what are they?

Yours respectfully,

H. T. HELGESEN,
Commissioner.

Twenty-three replies were received, representing seventeen counties. The reports received indicate that stock raising is quite extensively carried on in Billings, Burleigh, Hettinger, McHenry, Morton, Stark and Ward counties, while the interest is very perceptibly increasing in Stutsman and some other counties. The Missouri slope, the West Missouri country, the Mouse River region, and a small tract around the Turtle Mountains, are making stock raising a leading industry, and in all these localities the in-

terest in stock of some kind is increasing—usually sheep and horses.

The decided tendency is to increase the sheep husbandry of the State—so much so that in several localities sheep are reported by experienced stock men to command a higher price than the average farmer can afford to pay. The chief difficulty in many counties is that, owing to the repeated short crops, most farmers desiring to start in the sheep business are hampered by want of means.

Regarding the profit of stock raising thus far, the correspondents from the counties of Benson, Billings, Burleigh, Foster, Hettinger, McLean, Mercer, Morton, Rolette, Stark and Ward report unequivocally that the business has been profitable. In Bottineau it is said to be too new a business to determine definitely, but that no reason appears why it should not be successful financially. Dickey county reports it to have been unprofitable, assigning no reason. In LaMoure it has paid better than wheat raising. McIntosh reports only indifferent success. Stutsman county reports that sheep will pay if well managed. In McHenry county one correspondent reports good success, another the reverse and a third partial success.

Most of the counties that raise sheep to any extent report that they have paid better than anything else, and the next most popular kind of live stock is horses.

All of the counties heard from report sufficient pasturage, and most of them say that but a very small portion of the available pasturage is utilized.

Of the increase in the number of sheep since the assessors completed their work, or more properly since May, at which time stock is assessed, the correspondents differ widely, though all agree that the increase has been very marked.

In Benson county one correspondent reports "no increase to speak of," while another places the increase at 5,000 head. The assessors found 150 head in the county in May.

Billings county returned 1,617 for taxation. But one report has been received, and that says "some increase." Other reports from neighboring counties, however, indicate large increase in Billings.

The Bottineau assessors report 163 sheep for taxation and 175 to the Statistician. One correspondent says there has been no increase, another that 800 head have been brought into the county.

Burleigh county returned 3,721 for taxation and but 2,472 for statistics. The one correspondent remarks a great increase, but does not venture an estimate in numbers.

Dickey county reports 2,815 for taxation and 3,371 to the Statistician. The one correspondent estimates 4,000 head additional brought into the county since May.

Foster county returns 939 for taxation, 583 for statistics, and the one correspondent reports 3,000 additions.

Hettinger county returns 2,877 for taxation, and reports 2,600 brought into the county since then.

LaMoure county returned 2,090 for taxation, 2,557 for statistics, and the one correspondent estimates 3,000 additions.

McHenry county returns 2,625 for taxation, 3,473 for statistics, while the three correspondents differ as to the increase—one placing the number at 5,000, another at 7,000, and a third at 11,000.

McIntosh county returns 823 for taxation, 488 for statistics, and reports no increase.

McLean county returns 356 for taxation, 285 for statistics, and reports no increase.

Mercer county returns 850 for taxation, 177 for statistics, and the one correspondent reports 1,350 brought into the county since May.

Morton county returns 7,786 for taxation, but makes no report to the Statistician. An increase of 7,500 is reported since May.

Rolette county gives 360 for taxation, and 253 for statistics, and reports an increase of 2,500.

Stark county returns 5,193 for taxation, but makes no report to the Statistician. One correspondent estimates the increase at 10,000 and another at 25,000.

Stutsman county reports 8,797 for taxation, and 5,030 for statistics, while the increase is estimated by one correspondent at 10,000, and by another at 11,000—both apparently careful estimates.

Ward county returns 1,639 for taxation, and 1,924 to the Statistician. The one correspondent places the increase at 5,000. Newspaper and other reports, however, have estimated the increase in this county as high as 15,000.

These figures, at the most conservative estimates made by the correspondents, make the increase since the assessment was taken above 50,000 head for the seventeen counties named—the entire number in the State found by the assessors being 98,290, and in the seventeen counties 42,466. So that in the counties that have reported the increase averages 125 per cent, with a reasonable ground for believing that some of the estimates used are considerably too low. This takes no account of the known large increase in the larger and more populous counties of the State—the chief object of the inquiry being to ascertain the condition of the industry in the western portion of the State. Some stock men whose opinions are thought to be conservative estimate the total increase in the State at not less than 150,000 to 200,000. If these estimates are correct, there are now in the State 250,000 to 300,000 sheep, and next year, allowing for natural increase, will see not less than half a million head within our borders.

As two of the best samples of answers received, the following are submitted, which, though more conservative than most of the answers, are from successful men that are especially well informed

on the subject. The first is from a leading stock raiser in McHenry county:

Question 1. I think there are about 20,000 head of cattle in this county, and 2,000 horses.

2. The stock raised are good grades, and a few thorough bred cattle.

3. I do not think cattle raising has been financially successful, for almost all men in the cattle business want to sell out.

4. There is a tendency to decrease the business, as the hay crop is failing—growing less every year.

5. I think sheep are the most profitable stock in this country.

6. There is sufficient pasturage, but water is scarce and bad.

7. There have been some sheep brought into this county, which, with what are yet to come this fall, will make about 5,000 since May.

8. I am not posted as to other parts of the State.

9. I am not well enough posted to give an opinion.

10. The only drawback to sheep raising is the scarcity of hay and water, as sheep require good, pure water, which is not to be had in this county in any great amount.

The above is probably the most unfavorable of all the answers received. The following is from a leading man of Stutsman county:

1. The farmers are going into stock more extensively, and there is an increased demand for stock.

2. Sheep is most in demand. There is a tendency to improve the grade in all classes of stock.

3. The business of stock raising has been and will be financially successful when properly managed.

4. Stock raising of all kinds is on the increase, with good prospects.

5. At present sheep raising seems to be the most profitable.

6. There is sufficient pasturage in most localities for all kinds of stock.

7. There has been a material increase in the number of sheep in the county since May last. I believe there have been about 10,000 brought in.

8. I am not prepared to express any opinion on this point.

9. Sheep husbandry can be made profitable in this part of the State, with careful management.

10. I know of no serious drawbacks to the raising of sheep in this State.

CROP REPORTS FOR 1890.

In conformity with the custom heretofore existing in the Territory of Dakota, and followed by the bureau of agriculture in nearly every State, an effort was made to ascertain, approximately, the yield of the various crops for the present year. No crop bulletins were published during the growing season, owing to the fact that no funds were placed at the disposal of this office for the purpose, and the further fact that the insufficient amount allowed for clerk hire did not warrant the undertaking of a task involving so much correspondence and other labor, in addition to what was already specifically required of the Commissioner.

For the purpose of estimating the yields of crops, names of well informed farmers and others were asked of the county auditors, who would be able to make careful estimates, and blanks sent to each name so obtained, requesting his estimate of the average yield of the different crops grown in his county. From several of the counties very few replies were received, and afterward the blanks were sent to other parties. In all, 247 such inquiries were sent out, and 134 replies received. The only county in the State where replies were received from all the parties to whom inquiries were sent is Pembina.

The estimates received from some were evidently entirely erroneous, and when such was apparent their wild guesses were not considered in making up the average. To illustrate: In Ramsey county one crop correspondent estimates the average yield of millet and hungarian at 10 tons per acre, while his neighbor's estimate is $\frac{1}{4}$ ton; in Pierce county the four correspondents estimate the average yield of potatoes at 17, 20, 60 and 500 bushels per acre, respectively. In such cases the one who so widely differed from the rest was not considered.

In some cases the Commissioner has reason to believe that correspondents estimated the corn crop in bushels of ears. When such was apparent the yield reported was divided by two, to give the approximate amount of shelled corn. It is possibly in this way that the yield of corn in the Territory has been reported too high heretofore.

Some correspondents would make an evasive estimate whose extremes would include the best and poorest yields in the county. For instance, a Traill county farmer reports that the wheat in that

county will average 5 to 30 bushels per acre. Estimates of this kind are comparatively worthless.

Other answers widely at variance with each other have been received. From Ransom county but two reports were received, one of which estimated barley at 18 bushels per acre, while the other rated it at a total failure.

Like all estimates, the figures given cannot be regarded as absolutely accurate; but notwithstanding the instances cited above, the estimates as the whole may be considered as accurate as statistics taken the next year would be likely to be. The following table shows the yield of the leading crops—peas, beans, rye and buckwheat being so seldom estimated by correspondents, and so little raised in most of the counties, that it is deemed best to leave them out of the report. The acreage is that reported by the assessors, while the yields per acre are the estimates of the crop correspondents.

ACREAGE AND YIELD OF CROPS FOR 1890.

COUNTIES.	Number.		Wheat.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Barnes.....	7	3	87,359	12½	1,121,116
Benson.....	7	4	36,069	7½	261,500
Billings.....	.....	.....	.....	.....	.....
Bottineau.....	8	3	40,797	5½	217,584
Burleigh.....	8	3	17,202	11½	194,956
Cass.....	12	4	.....	14½	.....
Cavalier.....	5	2	87,156	13½	906,606
Dickey.....	5	4	86,074	4	344,236
Eddy.....	9	6	.....	6½	.....
Emmons.....	5	2	.....	5½	.....
Foster.....	5	3	22,504	10	225,040
Grand Forks.....	17	10	237,921	10½	2,587,824
Griggs.....	6	3	43,087	5½	244,160
Kidder.....	5	2	23,292	8	186,256
LaMoure.....	5	3	49,977	6½	341,509
Logan.....	5	4	2,080	5	10,400
McHenry.....	3	2	7,125	5	35,625
McIntosh.....	6	4	29,063	2½	73,665
McLean.....	5	2	4,008	13½	54,041
Mercer.....	5	4	1,333	13½	17,995
Morton.....	7	2	.....	11½	.....
Nelson.....	7	6	61,594	7½	441,424
Oliver.....	5	3	592	9½	5,725
Pembina.....	6	6	219,024	14	3,066,336
Pierce.....	5	4	15,751	8½	60,879
Ramsey.....	12	8	77,062	5½	443,222
Ransom.....	5	2	62,199	6½	398,744

ACREAGE AND YIELD OF CROPS FOR 1890 — *Continued.*

COUNTIES.	Number.		Wheat.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Richland	6	3	.....	13	.....
Rolette	5	2	22,068	12½	276,100
Sargent	10	4	81,157	3½	294,194
Stark	5	3	.....	11½	.....
Steele	5	2	88,889	9½	796,946
Stutsman	5	4	30,601	10½	328,361
Towner	5	3	.....	9½	.....
Traill	10	4	194,835	15	2,822,525
Walsh	12	6	181,518	10½	1,905,938
Ward	4	2	3,976	3	11,928
Wells	5	2	21,103	8½	179,376
Totals .....	....	....	1,809,441	.....	17,738,772

ACREAGE AND YIELD OF CROPS FOR 1890.

COUNTIES.	Number.		Oats.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Barnes	7	3	17,110	35	598,850
Benson	7	4	5,595	17	95,115
Billings .....	.....	.....	.....	.....	.....
Bottineau	8	3	5,231	5	26,155
Burleigh	8	3	5,462	22½	121,985
Cass	12	4	.....	33½	.....
Cavalier	5	2	11,748	27½	323,070
Diekey	5	4	14,345	5½	78,897
Eddy	9	6	.....	19	.....
Emmons	5	2	.....	11½	.....
Foster	5	3	4,436	20	88,720
Grand Forks	17	10	38,726	29	1,123,064
Griggs	6	3	7,163	17½	125,352
Kidder	5	2	4,321	17½	75,618
LaMoure	5	3	8,201	15½	125,749
Logan	5	4	423	12½	5,182
McHenry	3	2	1,798	10	17,980
McIntosh	6	4	5,983	3½	20,941
McLean	5	2	1,465	27½	40,285
Mercer	5	4	476	24½	11,543
Morton	7	2	.....	20	.....
Nelson	7	6	9,696	22½	219,549
Oliver	5	3	373	17½	6,588
Pembina	6	6	28,290	32½	919,425
Pierce	5	4	1,749	6½	12,025
Ramsey	12	8	10,047	11½	113,029
Ransom	5	2	12,302	12	147,624

ACREAGE AND YIELD OF CROPS FOR 1890 — *Continued.*

COUNTIES.	Number.		Oats.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Richland	6	3	.....	30½	.....
Rolette	5	2	4,524	23½	107,445
Sargent.....	10	4	12,891	8½	109,574
Stark	5	3	.....	18	.....
Steele	5	2	12,845	20	256,900
Stutsman	5	4	6,267	27½	174,464
Towner.....	5	3	.....	16	.....
Traill	10	4	27,621	25½	704,336
Walsh	12	6	25,726	25½	656,013
Ward.....	4	2	1,102	7½	8,265
Wells	5	2	4,388	18½	59,238
Totals .....	....	....	290,814	.....	6,372,971

ACREAGE AND YIELD OF CROPS FOR 1890.

COUNTIES.	Number.		Barley.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Barnes	7	3	5,069	21½	109,828
Benson	7	4	954	11½	10,971
Billings .....	.....	.....	.....	.....	.....
Bottineau	8	3	205	1	205
Burleigh	8	3	189	14½	2,741
Cass	12	4	.....	26½	.....
Cavalier	5	2	4,040	22½	90,900
Dickey	5	4	3,240	6½	21,060
Eddy	9	6	.....	11½	.....
Emmons	5	2	.....	9	.....
Foster	5	3	1,080	12½	13,320
Grand Forks	17	10	15,658	22½	349,695
Griggs	6	3	3,788	20	75,760
Kidder	5	2	707	12	8,484
LaMoure	5	3	1,450	13½	19,333
Logan	5	4	182	14	2,548
McHenry	3	2	391	.....	.....
McIntosh	6	4	1,148	18	2,105
McLean	5	2	66	14½	957
Mercer	5	4	50	25	1,250
Morton	7	2	.....	13½	.....
Nelson	7	6	3,822	16½	62,426
Oliver	5	3	.....	7½	.....
Pembina	6	6	12,806	23	317,538
Pierce	5	4	215	5½	1,254
Ramsey	12	8	3,883	10½	40,772
Ransom	5	2	657	9	5,915

ACREAGE AND YIELD OF CROPS FOR 1890—*Continued.*

COUNTIES.	Number.		Barley.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Richland	6	3	.....	27	.....
Rolette	5	2	364	15	5,460
Sargent.....	10	4	2,354	7½	18,248
Stark	5	3	.....	14	.....
Steele	5	2	2,084	17½	36,470
Stutsman	5	4	1,802	25	45,050
Towner	5	3	.....	12¾	.....
Traill.....	10	4	6,183	25½	157,667
Walsh.....	12	6	9,271	24	222,606
Ward.....	4	2	197	* ....	.....
Wells	5	2	551	12	6,612
Totals .....	....	....	88,414	.....	1,629,260

* No estimates given by crop correspondents.

† No acreage returned by assessors.

ACREAGE AND YIELD OF CROPS FOR 1890.

COUNTIES.	Number.		Flax.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Barnes	7	3	877	8	7,016
Benson	7	4	5,589	4½	2,245
Billings .....	...	...	.....	.....	.....
Bottineau	8	3	1,313	4	5,252
Burleigh	8	3	831	8½	7,064
Cass	12	4	.....	8½	.....
Cavalier	5	2	6,201	5	31,005
Dickey	5	4	17,688	2½	41,999
Eddy	9	6	.....	8½	.....
Emmons	5	2	.....	6	.....
Foster	5	3	5,313	5½	28,363
Grand Forks	17	10	2,508	9	22,572
Griggs	6	3	2,270	6	13,620
Kidder	5	2	2,099	11	23,089
LaMoure	5	3	4,250	3½	15,583
Logan	5	4	921	4	3,684
McHenry	3	2	575	2	1,150
McIntosh	6	4	11,434	3½	35,731
McLean	5	2	52	4	208
Mercer	5	4	594	6	3,504
Morton	7	2	.....	10	.....
Nelson	7	6	6,130	5½	35,758
Oliver	5	3	106	7	785
Pembina	6	6	1,653	7½	12,898
Pierce	5	4	1,390	1½	2,267
Ramsey	12	8	1,106	3½	4,266
Ransom	5	2	211	* .....	.....

ACREAGE AND YIELD OF CROPS FOR 1890 — *Continued.*

COUNTIES.	Number.		Flax		
	Inquiries.	Answers Received.	Acres.	Average Yield.	Acres.
Richland	6	3	.....	* .....	.....
Rolette	5	2	787	7	5,509
Sargent	10	4	3,859	4½	16,468
Stark	5	3	.....	8½	.....
Steele	5	2	2,154	* .....	.....
Stutsman	5	4	1,755	9	15,795
Towner	5	3	.....	5	.....
Traill	10	4	148	4½	668
Walsh	12	6	14,646	5½	76,892
Ward	4	2	36	5	180
Wells	5	2	9,020	5	45,100
Totals .....	....	....	105,225	.....	458,117

* No estimates given by crop correspondents.

ACREAGE AND YIELD OF CROPS FOR 1890.

COUNTIES.	Number.		Corn.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Barnes	7	8	613	25	15,325
Benson	7	4	1	* ....	.....
Billings .....	....	....	.....	.....	.....
Bottineau	8	8	22	* ....	.....
Burleigh	8	8	3,463	25	86,575
Cass	12	4	.....	26 $\frac{1}{4}$	.....
Cavalier	5	2	8	* ....	.....
Dickey	5	4	2,887	18 $\frac{3}{4}$	89,183
Eddy	9	6	.....	.....	.....
Emmons	5	2	.....	28 $\frac{3}{4}$	.....
Foster	5	8	21	* ....	.....
Grand Forks	17	10	188	20	3,760
Griggs	6	3	49	* ....	.....
Kidder	5	2	204	12 $\frac{1}{2}$	3,675
La Moure	5	3	731	12	8,772
Logan	5	4	94	13	1,222
McHenry	3	2	152	* ....	.....
McIntosh	6	4	826	9	7,434
McLean	5	2	585	25	14,625
Mercer	5	4	623	23 $\frac{3}{4}$	14,797
Morton	7	2	.....	24	.....
Nelson	7	6	38	* ....	.....
Oliver	5	3	688	16 $\frac{3}{4}$	10,683
Pembina	6	6	49	20	980
Pierce	5	4	53	* ....	.....
Ramsey	12	8	58	* ....	.....
Ransom	5	2	1,527	* ....	.....

ACREAGE AND YIELD OF CROPS FOR 1890 — *Continued.*

COUNTIES.	Number.		Corn.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Richland	6	3	.....	* .....	.....
Rolette	5	2	10	* .....	.....
Sargent.....	10	4	3,430	* .....	.....
Stark	5	3	.....	30	.....
Steele.....	5	2	† .....	* .....	.....
Stutsman	5	4	145	* .....	.....
Towner.....	5	3	.....	* .....	.....
Traill.....	10	4	1,042	22	22,924
Walsh.....	12	6	136	* .....	.....
Ward.....	4	2	162	* .....	.....
Wells.....	5	2	26	* .....	.....
Totals .....	....	....	17,911	.....	229,905

* No estimates given by crop correspondents.

† No acreage returned by assessors.

ACREAGE AND YIELD OF CROPS FOR 1890.

COUNTIES.	Number.		Potatoes.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Barnes.....	7	3	633	112½	71,212
Benson	7	4	172	31½	5,461
Billings.....	....	....	.....	.....	.....
Bottineau.....	8	3	271	65	17,615
Burleigh.....	8	3	340	58½	19,833
Cass	12	4	.....	116½	.....
Cavalier	5	2	338	150	50,700
Dickey.....	5	4	699	20	13,980
Eddy	9	6	.....	22½	.....
Emmons.....	5	2	.....	35	.....
Foster	5	3	89	25	2,225
Grand Forks	17	10	771	69	53,199
Griggs.....	6	3	238	37½	8,925
Kidder.....	5	2	131	35	4,585
La Moure	5	3	282	36½	10,340
Logan	5	4	6	67	402
McHenry.....	3	2	138	35	4,830
McIntosh.....	6	4	297	20	5,940
McLean	5	2	103	75	7,725
Mercer	5	4	30	53½	1,612
Morton	7	2	.....	55	.....
Nelson	7	6	345	49	16,905
Oliver	5	3	69	40	2,760
Pembina.....	6	6	851	130	110,630
Pierce	5	4	75	43	3,225
Ramsey.....	12	8	343	58	19,894
Ransom	5	2	571	35	19,985

ACREAGE AND YIELD OF CROPS FOR 1890 — *Continued.*

COUNTIES.	Number.		Potatoes.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Bushels.
Richland	6	3	.....	75	.....
Rolette	5	2	212	112	23,744
Sargent.....	10	4	371	28¾	10,666
Stark	5	3	.....	48	.....
Steele.....	5	2	352	150	52,900
Stutsman	5	4	361	113	40,793
Towner.....	5	3	.....	28¾	.....
Traill.....	10	4	1,154	67½	77,895
Walsh.....	12	6	1,073	66	70,818
Ward.....	4	2	165	25	4,125
Wells.....	5	2	123	30	3,840
Totals .....	....	....	10,606	.....	796,694

ACREAGE AND YIELD OF CROPS FOR 1890.

COUNTIES.	Number.		Millet and Hungarian.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Tons.
Barnes.....	7	3	2,299	2½	5,722
Benson	7	4	732	1½	1,098
Billings.....	.....	.....	.....	.....	.....
Bottineau	8	3	1,315	¾	658
Burleigh.....	8	3	2,543	1½	3,822
Cass	12	4	.....	2½	.....
Cavalier	5	2	995	1¼	1,244
Dickey.....	5	4	4,520	1	4,520
Eddy	9	6	.....	¾	.....
Emmons.....	5	2	.....	1½	.....
Foster	5	3	1,056	¾	880
Grand Forks.....	17	10	13,724	1½	13,297
Griggs.....	6	3	1,650	1¼	2,063
Kidder.....	5	2	514	2½	1,285
LaMoure	5	3	330	¾	275
Logan	5	4	5	1½	8
McHenry	3	2	261	.....	.....
McIntosh	6	4	304	1½	507
McLean	5	2	524	2	1,048
Mercer	5	4	253	2	506
Morton	7	2	.....	1½	.....
Nelson	7	6	1,816	1½	2,543
Oliver	5	3	442	1¼	553
Pembina	6	6	7,194	1½	12,889
Pierce	5	4	174	¾	87
Ramsey	12	8	1,443	1	1,443
Ransom	5	2	3,364	¾	1,682

ACREAGE AND YIELD OF CROPS FOR 1890 — *Continued.*

COUNTIES.	Number.		Millet and Hungarian.		
	Inquiries Sent.	Answers Received.	Acres.	Average Yield.	Tons.
Richland	6	8	.....	1	.....
Rolette	5	2	210	1½	315
Sargent	10	4	2,651	1½	3,977
Stark	5	3	.....	1½	.....
Steele	5	2	2,077	2½	7,443
Stutsman	5	4	2,553	1¾	4,787
Towner	5	3	.....	2½	.....
Traill	10	4	10,747	2½	30,450
Walsh	12	6	7,424	2	14,848
Ward	4	2	439	*	.....
Wells	5	2	1,087	1	1,087
Totals .....	.....	.....	73,546	.....	124,042

* No estimates given by crop correspondents.

The counties whose acreage and bushels are left blank in the foregoing tables are those from which no statistics were received. The number of acres reported in those counties last year by Commissioner Hagerty is as follows:

	Wheat.	Oats.	Barley.	Flax.	Corn.	Potatoes.	Millet and Hungarian.
Billings* .....	.....	.....	.....	.....	.....	.....	.....
Cass	376,032	59,130	13,082	512	1,112	1,549	7,235
Eddy	28,367	5,492	1,392	559	12	149	182
Emmons	8,356	2,930	1,036	950	2,417	246	537
Morton	10,314	3,783	240	601	3,162	600	1,939
Richland	127,831	25,814	2,946	1,225	2,125	705	1,422
Stark	7,806	4,107	325	150	2,100	475	1,535
Towner	42,745	5,374	654	70	.....	621	5
Totals	601,451	106,573	19,675	4,067	10,928	4,345	12,857

* No crops to speak of are raised in Billings county, the people being almost entirely engaged in grazing.

Stark and Towner counties were not reported to Commissioner Hagerty last year, and his reports as to these counties are but estimates.

Assuming that the acreage in these counties is the same as last year, which is probably nearly correct, and multiplying this estimated acreage by the yield estimated by the correspondents, the products of these counties would be as follows, viz:

	Wheat.	Oats.	Barley.	Flax.	Corn.	Potatoes.	Millet and Hun- garian.
* Billings .....	.....	.....	.....	.....	.....	.....	.....
Cass	5,358,456	1,966,072	348,654	4,267	28,190	180,071	18,092
Eddy	184,325	104,348	15,776	2,050	+150	3,328	121
Emmons	48,047	32,962	9,324	7,701	38,004	8,610	604
Morton	121,164	74,660	3,240	6,010	75,888	33,000	1,200
Richland	1,661,903	795,931	79,542	+9,000	+23,000	52,875	3,244
Stark	88,468	73,800	4,550	1,950	63,000	22,890	1,791
Towner	398,963	85,964	10,246	350	.....	14,490	12
Totals	7,861,276	3,133,757	471,332	29,327	228,232	315,174	25,064

† No estimate of yield given by the crop correspondents, the product being calculated on estimates made by this office.

If to these estimates of the counties not reported be added the totals for the thirty counties that made returns, the following figures are obtained for the total product of the State, viz:

THIRTY COUNTIES REPORTED:

	Bushels.
Wheat	17,793,772
Oats	6,372,971
Barley	1,029,260
Flax	458,117
Corn	229,905
Potatoes	736,694
Millet and Hungarian, tons	124,042

EIGHT COUNTIES ESTIMATED:

	Bushels.
Wheat	7,861,216
Oats	3,133,757
Barley	471,332
Flax	29,327
Corn	228,232
Potatoes	315,174
Millet and Hungarian, tons	25,064

TOTALS.	
	Bushels.
Wheat	25,654,988
Oats	9,506,728
Barley	1,520,592
Flax	487,444
Corn	458,137
Potatoes	1,051,868
Millet and Hungarian, tons	149,106

It is perhaps but fair to some of the auditors who failed to send statistics or their own reports, to state that in several cases they have not been allowed sufficient help by the county commissioners, and have not been able to keep their work up.

ANALYSES OF CROP REPORT.

The figures given show that the Red River Valley in general raised an average crop, except potatoes, which are below the ordinary yield in the valley, and a still poorer crop elsewhere in the State. Most of the counties in the Missouri Valley and west of that river have raised a fair crop, though not averaging as good as the Red River Valley. In the south interior of the State, especially from the western edge of the Red River Valley to the Missouri slope, the crops are very poor—Sargent, Dickey and McIntosh counties having experienced almost entire failures. Ransom, LaMoure and Emmons counties are also poor. In the north part of the State after leaving the Red River counties the poor crops begin. In Cavalier county the yield is fair, but Nelson, Ramsey, Towner, Steele, Griggs, Eddy, part of Benson and most of Rolette have as a rule scarcely half what would be called an average crop. In northwestern Benson, Pierce, Bottineau and a small portion of Rolette, with McHenry and Ward the crops are almost an entire failure.

The main crop everywhere is wheat, though there is a growing inclination to grow other crops. A large increase in the acreage of flax is noted in several counties, but unfortunately the flax crop is unusually poor this year. Corn, and especially millet and Hungarian, are materially increasing, and are usually reported as profitable crops. Barley shows a marked increase over last year in some of the counties, though this is more than offset by a decrease in others. Beans and peas are grown to an increasing extent, but are not raised in sufficient quantities to render them of much importance as a crop.

The total acreage in several counties shows a decrease, especially in wheat, which is usually attributable in the interior counties to the persistent failure of crops incident to lack of moisture for the past three years, though it may be in some degree the result of defective work by assessors in not obtaining correct figures.

The corn of the State is raised chiefly in the Missouri River

counties and along the southern line of the State, although it is rapidly growing in popularity in nearly all parts of the State.

WHEAT CROPS FOR DIFFERENT YEARS.

The following table exhibits the wheat crops raised in each county for all years for which figures could be obtained. The information was asked of the county auditors, and where it was furnished by them it is given without foot notes—except where the assessors' returns differed from the auditors' reports, in which cases the assessors' figures are used and those given by the auditors noted at the bottom of the table. Where the assessors made no returns the estimates of Commissioner Hagerty for 1889 are relied upon to give the amount for that year, which authority is cited in the foot notes. For the year 1888 Mr. Hagerty was the authority followed where the amounts were not reported by the auditors. For years previous to 1888 the authority followed is McClure's Resources of Dakota, except in the few cases reported by the auditors. For the year 1890 the acreage given by the assessors is multiplied by the average yield reported by the crop correspondents—and for the eight counties that furnished no assessors' returns there were no data for calculating the amount raised in 1890. The estimates for these eight counties will be found under the head of "Crop reports for 1890." The figures given are believed to be as accurate as it is possible now to obtain.

**NUMBER OF BUSHELS OF WHEAT RAISED IN EACH COUNTY
FOR THE YEARS NAMED.**

Counties.	1880.	1885.	1887.	1888.	1889.	1890.
Barnes.....		1,400,842	|| 1,183,182	± 719,225	669,608	1,121,116
Benson.....		± 19,159	± 949,000	± 155,872	162,901	261,500
Billings.....						
Bottineau.....			150,000	± 94,795	121,469	217,584
Burleigh.....		259,697	198,000	± 176,641	116,189	194,956
Cass.....	|| 1,012,565	± 5,983,830	|| 4,741,750	± 3,179,093	± 3,008,256	.....
Cavalier.....		± 340,028	|| 1,104,000	± 517,691	455,277	906,606
Dickey.....		311,836	|| 1,558,322	± 847,247	505,693	344,236
Eddy.....		93,736	|| 268,000	133,965	119,073	.....
Emmons.....		± 8,773	± 168,000	63,885	58,603	.....
Foster.....		± 133,992	± 559,188	± 216,885	129,650	225,040
Grand Forks.....	|| 98,362	± 3,615,741	|| 5,460,000	2,026,270	2,765,681	2,537,824
Griggs.....		428,714	|| 444,864	190,992	305,014	244,160
Kidder.....		241,593	|| 245,663	± 220,141	74,726	186,256
LaMoure.....		± 279,176	|| 559,000	530,798	168,397	341,509
Logan.....			6,776	± 13,840	9,715	10,400
McHenry.....		1,000	10,000	20,746	25,885	35,625
McIntosh.....			48,966	± 125,715	104,362	73,665
McLean.....		± 27,593	|| 77,129	± 49,313	24,454	54,041
Mercer.....		± 3,197	± 9,970	8,895	2,450	17,995
Morton.....		± 29,681	|| 100,000	± 84,212	± 76,324	.....
Nelson.....		± 132,525	|| 930,278	55,320	301,269	441,424
Oliver.....		1,816	|| 6,000	5,795	2,944	5,725
Pembina.....	± 63,676	± 2,056,783	|| 4,062,500	± 2,069,206	2,430,143	3,066,336
Pierce.....				± 66,600	± 39,743	60,379
Ramsey.....		162,267	|| 735,000	± 418,468	175,513	443,222
Ransom.....	± 8,060	|| 831,837	|| 669,084	± 942,092	447,436	388,744
Richland.....	± 184,753	|| 1,510,015	|| 1,161,996	± 1,066,674	± 2,460,746	.....
Rolette.....		± 6,957	|| 132,000	± 70,867	87,303	276,100
Sargent.....		244,024	|| 765,000	± 331,792	629,243	294,194
Stark.....		18,538	± 82,675	± 58,543	± 89,769	.....
Steele.....		762,230	|| 975,000	604,053	± 645,665	796,946
Stutsman.....	|| 10,985	|| 1,100,456	± 379,792	± 339,786	205,846	323,361
Towner.....		± 8,455	± 362,322	± 75,073	± 299,215	.....
Traill.....	|| 333,409	|| 2,726,447	|| 2,681,250	± 2,174,568	2,318,531	2,822,525
Walsh.....		2,497,699	|| 4,987,992	± 2,234,392	2,260,970	1,905,939
Ward.....		± 2,445	|| 9,000	17,826	10,054	11,928
Wells.....		100,552	|| 220,320	± 184,335	81,222	179,376

|| McClure's "Resources of Dakota."

± Hagerty's Statistical Abstract.

† County Auditor gives 85,420.

§ County Auditor gives 653,660.

VITAL STATISTICS.

COUNTIES.	Marriages.	Births.			Deaths.
		Male.	Female.	Total.	
Barnes.....	.....	.....	.....	.....	.....
Benson	13	31	31	62	12
Billings.....	.....	.....	.....	.....	.....
Bottineau.....	17	47	21	68	13
Burleigh.....	29	53	39	92	42
Cass .....	.....	.....	.....	.....	.....
Cavalier	40	.....	.....	107	37
Dickey.....	.....	.....	.....	.....	.....
Eddy .....	.....	.....	.....	.....	.....
Emmons.....	.....	.....	.....	.....	.....
Foster	5	14	13	27	2
Grand Forks.....	76	.....	.....	236	152
Griggs.....	11	39	43	82	28
Kidder.....	2	4	4	8	2
LaMoure.....	33	61	61	122	32
Logan	2	.....	3	3	.....
McHenry	16	13	20	33	3
McIntosh	39	88	106	194	72
McLean	5	15	14	29	4
Mercer	7	16	6	22	2
Morton .....	.....	.....	.....	.....	.....
Nelson	25	69	61	130	23
Oliver	3	8	7	15	5
Pembina	79	150	153	303	104
Pierce	7	7	2	9	.....
Ramsey	9	30	24	54	11
Ransom	13	61	47	108	21
Richland .....	.....	.....	.....	.....	.....
Rolette	13	43	32	75	6
Sargent.....	43	67	66	133	25
Stark .....	.....	.....	.....	.....	.....
Steele.....	31	82	64	146	43
Stutsman	1	1	2	3	.....
Towner.....	.....	.....	.....	.....	.....
Trall	36	100	129	229	80
Walsh .....	.....	.....	.....	.....	.....
Ward	6	33	30	63	15
Wells.....	3	26	23	49	1
Totals	569	1,058	1,001	2,402	735

MARRIAGES.

NO RETURNS.	COUNTIES.	Nationality.					Age of Parties.							
							Husband.				Wife.			
		Both Parties American.	Both Parties Scandinavian.	Both Parties Other Nationalities.	One Party American.	Total.	Under Twenty Years.	Between 20 and 25 Years.	Between 25 and 30 Years.	Over 30 Years.	Under Twenty Years.	Between 20 and 25 Years.	Between 25 and 30 Years.	Over 30 Years.
Barnes,	Benson	7	2	1	3	13	...	2	4	7	1	6	3	3
Billings,	Griggs.....	4	4	...	3	11	...	...	...	...	...	...	...	...
Cass,	Kidder.....	1	...	1	...	2	...	...	...	2	...	...	1	1
Dickey,	Logan	1	...	1	...	2	...	...	...	...	1	...	1	...
Eddy,	McLean	1	1	1	2	5	...	1	1	3	2	1	2	...
Emmons,	Mercer	2	...	5	...	7	...	4	1	2	1	5	...	1
Morton,	Oliver	1	...	2	...	3	...	...	2	1	2	1	...	...
Richland,	Pierce	1	4	1	1	7	...	1	3	3	...	4	3	...
Stark,	Ramsey	2	3	3	1	9	...	3	5	1	1	3	4	1
Towner and Walsh.	Ransom	5	7	3	3	13	1	1	6	10	1	5	8	4
	Rolette	1	1	10	1	13	...	4	4	5	6	4	1	2
	Sargent	9	20	10	4	43	...	9	14	20	7	19	12	5
	Traill	10	18	3	5	36	...	11	12	13	4	21	8	3
	Wells.....	1	...	2	...	3	...	1	2	...	2	1	...	...
	Totals	46	60	43	23	172	1	37	56	67	28	70	43	20
	Per cent.....	26.7	34.9	25.0	13.4	...	.6	23.9	34.8	41.6	17.4	43.5	26.7	12.4
Whole number of marriages reported, 569.														

Whole number of marriages reported, 589.

BIRTHS.

COUNTIES.	Both Parents Amer- ican.	Both Parents Scan- dinavian.	Both Parents Other Nationalities.	One Parent Amer- ican.	Totals.
Benson	5	8	2	5	20
Griggs.....	11	51	20	.....	82
Kidder.....	6	.....	2	.....	8
McLean	4	17	8	5	29
Mercer	2	1	19	.....	22
Oliver	8	1	8	8	15
Pierce .....	.....	7	2	.....	9
Ransom	25	42	21	20	108
Rolette	11	7	48	14	75
Sargent	36	57	24	16	133
Steele.....	48	72	22	9	146
Trail	80	138	81	80	229
Wells.....	14	8	21	5	48
Totals	190	409	218	107	924
Per Cent.....	20.6	44.3	23.6	11.5	.....

Of 42 births data not given; total	62
Whole number of births reported	2,402
Whole number of males	1,058
Whole number of females	1,001
Sex not given	348
Males, per cent. (approximate)	51.2
Females, per cent. (approximate)	48.8

The following counties made no returns: Barnes, Billings, Cass, Dickey, Eddy, Emmons, Morton, Richland, Stark, Towner and Walsh.

DEATHS.

COUNTIES.	Number of Deaths.	Nationality.			Age at Death.								Cause of Death.								REMARKS.
		American.	Scandinavian.	Other Nationalities.	Under One Year.	One to Five Years.	Five to Ten Years.	Ten to 20 Years.	Twenty to 30 Years.	Thirty to 50 Years.	Over Fifty Years.	Consumption	Typhoid Fever.	Diphtheria.	Pneumonia.	Scarlet Fever	Heart Disease.	Lung Fever.	Other Causes.	Not Given.	
Benson	12	8	3	1	2	5	...	...	...	2	3	1	...	...	1	3	1	...	3	3	Who's number of deaths reported 785. The following counties made no report: Barnes, Billings, Cass, Dickey, Emmons, Logan, Morton, Pierce, Richland, Stark, Stutsman and Walsh.
Burling	42	25	...	17	...	...	...	...	...	...	...	1	...	2	11	3	...	...	21	4	
Griggs.....	28	11	16	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	28	
Kidder.....	2	2	...	...	...	...	...	1	...	1	1	1	...	...	...	...	...	...	1	...	
McLean	4	...	3	1	1	1	1	...	1	1	...	...	...	...	...	...	...	...	3	1	
Mercer	2	...	...	...	1	...	...	1	...	...	...	1	...	...	...	...	...	...	2	...	
Oliver	5	4	...	1	1	...	1	1	1	...	2	1	...	...	1	2	...	...	1	...	
Ramsey	11	6	4	1	2	1	1	2	4	1	...	...	1	1	1	...	...	6	3	...	
Ransom	21	10	5	6	4	5	...	...	...	4	4	...	...	1	1	...	1	16	2	...	
Rolette	6	4	1	1	...	3	...	...	1	...	2	...	1	...	...	1	...	...	4	...	
Sargent.....	25	16	3	6	9	8	1	...	2	2	3	1	...	1	...	3	1	1	10	8	
Steele.....	43	23	10	7	...	...	...	...	...	...	...	3	3	6	...	...	...	...	6	25	
Trail	80	25	49	6	26	15	9	3	...	18	9	6	6	12	...	...	...	...	36	20	
Wells.....	3	3	...	...	1	...	...	...	...	1	1	1	...	...	...	...	...	2	...	...	
Ward.....	15	...	...	...	...	...	...	...	...	...	...	12	...	...	...	...	2	1	...	...	
Totals	299	140	94	48	47	37	11	7	10	29	28	27	10	23	4	26	5	4	112	94	
Per cent, approx. ....	....	49.6	33.3	17.	28.1	22.2	6.6	4.2	6.	17.4	15.6	9.	3.3	7.7	1.4	6.7	1.7	1.3	37.5	31.4	

FROM STATISTICS FOR THE YEAR ENDING DECEMBER 31, 1889, AND ACREAGE FOR 1890.

AGRICULTURE.

COUNTIES.	Land in Farm and Used in Connection Therewith.		Present Cash Value.		Bushels of Wheat on Hand at Time of Assessor's Visit.	Bushels of Oats on Hand at Time of Assessor's Visit.	Bushels of Barley on Hand at Time of Assessor's Visit.
	Acres Under Cultivation.	Total Number of Acres in Farm (Cultivated and Not Cultivated.)	Of Farm Including Improvements.	Of Farming Implements and Machinery.			
Barnes	127,332	213,680	\$ 1,091,830	\$ 108,502	2,912	9,709	2,883
Benson	47,202	98,581	481,702	38,454	147	2,443	23
Billings .....	.....	.....	.....	.....	.....	.....	.....
Bottineau	47,499	143,161	570,123	43,798	40	85	250
Burleigh	28,956	85,086	276,447	27,900	1,415	2,174	28
Cass .....	.....	.....	.....	.....	.....	.....	.....
Cavalier	85,908	227,971	1,041,594	81,376	995	4,372	1,614
Dickey	129,082	303,713	1,253,110	72,440	7,240	10,298	2,369
Eddy .....	.....	.....	.....	.....	.....	.....	.....
Emmons	27,544	162,478	416,910	24,376	.....	.....	.....
Foster	62,190	118,851	425,200	9,995	10	517	60
Grand Forks	335,745	496,552	3,083,808	164,995	30,844	61,033	32,146
Griggs	62,220	119,031	571,357	54,232	1,137	7,422	1,353
Kidder	27,154	52,994	296,100	17,498	235	1,110	350
LaMoure	73,204	156,270	861,751	90,579	2,073	4,798	1,507
Logan	3,712	18,200	12,006	4,149	53	250	.....

McHenry	12,061	62,069	\$ 175,880	\$ 14,580	65	214	.....
McIntosh	47,980	183,280	668,425	91,112	155	151	41
McLean	7,851	31,720	127,735	6,144	1,094	1,787	85
Mercer	8,288	13,715	24,789	2,185	18	.....	.....
Morton .....	.....	.....	.....	.....	.....	.....	.....
Nelson	100,214	213,741	758,641	82,196	1,013	6,540	1,974
Oliver	2,985	16,447	41,985	3,972	43	747	.....
Pembina	288,775	527,718	4,108,271	877,680	9,880	37,700	15,043
Pierce	19,607	62,478	174,821	10,745	57	17	.....
Ramsey	98,115	180,148	756,908	57,881	204	2,085	552
Ransom	88,046	133,478	1,061,192	73,188	350	655	84
Richland .....	.....	.....	.....	.....	.....	.....	.....
Rolette	30,360	106,579	428,700	56,836	729	395	33
Sargent	111,722	• 220,226	1,261,025	105,947	2,584	7,920	646
Stark .....	.....	.....	.....	.....	.....	.....	.....
Steele	106,977	182,901	1,162,672	120,888	10,715	11,146	1,229
Suttsman	46,371	81,112	532,450	43,065	690	5,755	1,008
Towner .....	.....	.....	.....	.....	.....	.....	.....
Trail	259,618	353,767	2,848,484	161,411	32,988	31,793	8,042
Walsh	258,446	390,141	2,905,817	2,327,790	16,797	23,873	6,313
Ward	8,213	54,991	182,922	10,270	41	71	.....
Wells	37,429	*75,000	88,140	19,625	1,445	700	.....
Totals	2,597,516	5,066,079	27,571,071	4,284,067	125,331	237,240	78,637

* Partly estimated.

AGRICULTURE--Continued.

ACREAGE SOWN AND THE YIELD OF THE CROPS FOR THE YEAR 1889.

COUNTIES.	Corn.		Wheat.		Oats.		Rye.		Barley.	
	Acres, 1889.	Bushels, 1889.	Acres, 1889.	Bushels, 1889.	Acres, 1889.	Bushels, 1889.	Acres, 1889.	Bushels, 1889.	Acres, 1889.	Bushels, 1889.
Barnes.....	127	1,083	88,416	669,603	17,566	202,362	198	1,578	6,257	59,203
Benson.....	3	85	30,339	162,901	5,028	40,711	4	27	980	4,752
Billings.....	..	..	..	..	..	..	..	..	..	..
Botineau.....	..	..	28,921	79,782	4,910	13,498	3	..	231	722
Burleigh.....	2,173	31,448	19,590	116,189	6,006	54,703	828	2,774	308	1,620
Cass.....	..	..	..	..	..	..	..	..	..	..
Cavalier.....	..	..	60,338	455,277	10,890	94,382	..	..	4,477	37,444
Dickey.....	1,484	17,109	79,543	515,698	16,194	118,385	123	651	5,407	829,573
Eddy.....	..	..	..	..	..	..	..	..	..	..
Emmons.....	..	..	..	..	..	..	..	..	..	..
Foster.....	3	72	25,976	129,650	4,410	38,645	5	7	1,241	8,144
Grand Forks.....	70	1,214	221,801	3,467,774	25,749	743,454	38	304	14,990	349,254
Griggs.....	4	40	44,128	305,014	7,488	95,892	262	2,277	4,442	31,080
Kidder.....	440	401	26,159	74,726	4,596	14,573	81	159	674	1,667
LaMoure.....	220	1,630	46,948	166,397	9,503	56,670	622	3,320	2,462	13,211

Logan.....	23	79	1,681	9,715	319	3,602	.....	.....	.....	86	775
McHenry.....	88	992	5,234	25,885	2,323	13,980	6	31	441	2,847	
McIntosh.....	329	1,642	17,213	104,372	5,153	46,981	20	143	1,150	5,413	
McLean.....	490	6,798	4,547	24,454	1,959	22,144	22	78	111	1,250	
Mercer.....	602	3,473	1,114	2,450	469	2,212	2	2	82	125	
Morton.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nelson.....	54	50	74,496	301,299	11,665	70,172	77	649	2,761	20,923	
Oliver.....	609	5,062	842	2,944	764	1,944	10	30	36	35	
Pembina.....	8	147	201,450	2,430,143	27,244	371,451	20	150	13,522	296,657	
Pierce.....	.....	.....	10,796	38,743	1,153	3,962	.....	.....	161	436	
Ramsey.....	26	37	71,534	175,513	696	24,046	5	12	2,916	5,421	
Ransom.....	277	2,551	60,851	447,436	13,268	109,983	104	937	688	5,228	
Richland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rolette.....	4	28	18,788	87,303	3,796	23,559	9	20	510	2,068	
Sargent.....	740	5,378	72,435	623,243	13,966	139,041	58	333	2,217	15,779	
Stark.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Steele.....	73	590	78,152	645,695	14,230	178,598	125	651	1,827	19,730	
Stutsman.....	65	1,140	32,265	205,846	6,321	68,208	39	310	2,416	20,590	
Towner.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Traill.....	204	1,319	223,624	2,318,531	27,355	411,509	44	595	7,235	81,613	
Walsh.....	13	50	151,641	2,290,976	28,265	358,253	1	22	7,514	133,816	
Ward.....	162	492	3,385	10,054	1,278	7,151	.....	.....	99	231	
Wells.....	.....	.....	21,568	81,222	4,209	36,185	.....	45	282	1,513	
Totals.....	8,270	82,925	1,750,023	15,947,726	276,763	3,366,156	2,156	15,115	85,138	1,951,145	

Ag and Labor—6

AGRICULTURE—Continued.

ACREAGE SOWN AND THE YIELD OF THE CROPS FOR THE YEAR 1889.

Counties.	Flax.		Beans.		Peas.		Irish Potatoes.		Buckwheat.		Hay.			Planted or to Be Planted 1890.	
	Acreage, 1889.	Bushels, 1889.	Acreage, 1889.	Bushels, 1889.	Acreage, 1889.	Bushels, 1889.	Acreage, 1889.	Bushels, 1889.	Acreage, 1889.	Bushels, 1889.	No. tons of Millet or Hungarian Hay Cut in 1889.	No. tons of Oat Hay Cut in 1889.	No. tons of Prairie Hay Cut in 1889.	Corn.	Wheat.
Barnes.....	387	1,267	16	10	8	129	436	28,880	.....	5	454	203	9,732	613	87,359
Benson.....	764	3,719	.....	.....	1	11	138	15,654	.....	.....	100	95	8,061	1	36,069
Billings.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bottineau.....	13	10	1	20	6	15	267	15,147	1	.....	56	208	8,920	22	40,797
Burleigh.....	694	1,803	21	108	10	38	650	36,483	1	.....	1,515	32	12,505	3,463	17,222
Cass.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cavalier.....	702	4,040	.....	.....	.....	.....	325	29,022	.....	.....	309	508	8,226	3	67,156
Dickey.....	13,851	27,303	20	45	8	51	778	18,586	5	.....	873	283	12,446	2,987	86,074
Eddy.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Emmons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foster.....	1,147	8,293	1	7	15	102	126	10,981	.....	.....	593	.....	4,511	21	22,504
Grand Forks...	330	4,717	9	63	2	210	856	117,406	200	314	9,240	2,551	23,288	188	237,921
Griggs.....	306	2,571	.....	.....	23	89	228	24,211	1	4	409	756	8,047	49	43,067
Kidder.....	175	350	7	4	4	.....	163	3,100	.....	.....	163	268	7,881	294	23,232
LaMoure.....	2,916	4,734	6	40	49	553	384	7,766	13	11	565	.....	8,364	731	49,977

AGRICULTURE—Continued.

COUNTIES.	Acreage Sown or Planted or to be Planted During the Year 1890.							Acres of Grasses in Cultivation or to be Cultivated in 1890.					Value of Products of Gardens Marketed during the Year 1890.	Value of Poultry and Eggs Sold during the Year 1890.	
	Oats.	Rye.	Barley.	Flax.	Beans.	Peas.	Irish Potatoes.	Buckwheat.	Milliet and Hungarian.	Timothy.	Clover.	Other Grasses.			Prairie Under Fence or used for Meadow.
Barnes	17,110	221	5,069	877	17	11	683	30	2,289	20	2	152	5,072	\$ 418	\$ 2,943
Benson	5,595	2	954	5,539	2	4	172	10	732	.....	.....	.....	4,285	231	847
Billings .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Botineau.....	5,231	1	205	1,313	.....	5	271	20	1,315	10	1	5	5,639	146	939
Burleigh	5,462	574	189	831	40	30	340	147	2,548	4	.....	.....	6,308	1,774	5,019
Cass.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cavalier	11,748	.....	4,040	6,201	11	2	338	49	995	103	.....	2	2,430	12	1,215
Dickey	14,345	79	3,240	17,683	21	28	699	18	4,520	20	1	20	14,344	3,443	2,249
Eddy .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Emmons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foster.....	4,436	130	1,060	5,318	1	43	89	20	1,056	1	.....	.....	727	112	1,987
Grand Forks.....	88,726	62	15,658	2,508	15	23	771	74	13,724	3,473	19	147	30,242	3,704	7,854
Griggs	7,163	891	3,728	2,270	1	16	238	102	1,650	84	1	.....	3,050	194	1,840
Kidder	4,812	166	707	2,066	23	7	131	.....	514	3	.....	.....	1,064	793	1,069
LaMoure	8,201	1,038	1,450	4,250	21	34	232	330	330	2,463	54	1	4,316	821	2,519
Logan.....	423	.....	182	921	.....	.....	6	.....	5	.....	.....	.....	3	.....	43

McHenry.....	1,768	15	391	575	4	13	138	17	261	2	.....	1	14,624	206	774
McIntosh.....	5,963	100	1,148	11,434	.....	.....	297	.....	304	3	.....	.....	461	.....	46
McLean.....	1,465	43	66	52	5	8	108	.....	524	28	.....	5	833	1,912	827
Mercer.....	476	6	50	554	8	3	30	.....	253	.....	.....	6	25	12	890
Morton.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nelson.....	9,686	147	3,822	6,130	1	8	945	60	1,816	165	14	.....	15,241	357	2,411
Oliver.....	373	15	.....	165	2	.....	69	.....	442	.....	.....	.....	540	61	556
Pembina.....	28,200	9	13,806	1,653	1	8	851	.....	7,194	408	5	41	23,062	2,979	4,664
Pierce.....	1,749	10	215	1,360	1	3	75	37	174	4	.....	.....	281	.....	59
Ramsey.....	10,047	12	3,883	1,106	.....	3	343	17	1,443	69	9	5	9,395	494	3,610
Ransom.....	12,302	111	657	211	18	1	571	16	3,364	34	10	45	8,205	221	1,859
Richland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rolette.....	4,524	5	364	787	3	10	212	36	210	32	18	.....	5,196	371	815
Sargent.....	12,891	150	2,354	3,659	146	26	371	38	2,951	152	120	61	61,777	507	4,962
Stark.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Steele.....	12,845	181	2,064	2,154	.....	3	352	.....	2,977	216	.....	1	14,476	206	2,342
Stutsman.....	6,287	163	1,802	1,755	4	4	361	10	2,553	7	.....	5	2,185	142	3,260
Towner.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trail.....	27,621	301	6,183	148	9	49	1,154	12	10,747	1,984	424	120	27,920	1,265	18,490
Walsh.....	25,726	2	9,279	14,646	9	13	1,073	7	7,424	682	1	32	26,613	2,389	4,402
Ward.....	1,102	.....	197	36	1	6	165	2	489	4	1	2	3,894	301	2,805
Wells.....	4,888	24	551	9,020	.....	14	128	.....	1,657	.....	.....	.....	106	7	123
Total.....	290,314	3,958	88,414	123,225	366	373	10,608	1,052	73,546	9,866	630	651	192,884	\$22,578	\$31,469

FARM STATISTICS—Continued.

COUNTIES.	Dairy Products During the Year 1880.					Live Stock on Hand at Time of Taking Assessment.						
	Made in Family.		Made in Factory or Creamery.			Value of Milk Sold During the Year Other than that Sold to Cheese Factories and Creameries.	Number of Horses.	Number of Mules and Asses.	Number of Milch Cows.	Number of Other Cattle.	Number of Sheep.	Number of Swine.
	Cheese.	Butter.	Number of Pounds Made.	Cheese.	Butter.							
Barnes	4,589	115,002	13,160	5,137	\$ 871	\$ 1,162	3,193	231	2,473	2,584	845	1,643
Benson	880	41,524	.....	.....	.....	214	1,146	95	1,182	1,968	148	600
Billings .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Botineau	500	63,027	.....	.....	.....	.....	1,134	26	1,143	2,437	175	545
Burleigh	1,439	82,643	650	1,444	779	2,064	1,867	126	2,193	3,184	2,472	1,171
Cass .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cavalier .....	.....	84,476	.....	.....	.....	.....	2,636	72	2,095	3,603	712	2,124
Dickey	1,882	104,082	3,920	2,650	185	20,000	3,575	214	2,566	5,654	3,371	1,965
Eddy .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Emmons .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foster	250	27,485	.....	.....	.....	530	803	134	651	851	583	268
Grand Forks	2,700	255,019	.....	7,595	1,296	10,211	9,097	663	5,826	5,465	1,969	5,153
Griggs	1,022	59,800	1,380	1,860	1,183	30	1,434	140	1,905	2,909	649	1,288
Kidder	100	26,897	.....	.....	.....	1,605	1,105	94	840	1,289	5,162	337
LaMoure	880	110,534	.....	11,885	1,794	40	2,045	218	1,718	2,621	2,557	981
Logan .....	.....	6,234	.....	.....	.....	.....	161	5	173	276	770	83

McHenry.....	4,584	52,515	3,000	.....	.....	.....	1,003	41	1,825	3,680	3,473	442
McIntosh.....	3,310	8,563	.....	.....	.....	.....	1,874	17	1,625	3,226	823	1,425
McLean.....	2,348	31,770	.....	.....	.....	.....	528	41	531	1,055	285	388
Mercer.....	2,015	7,435	.....	.....	.....	.....	212	2	241	685	177	220
Morton.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nelson.....	1,816	131,801	2,500	5,230	600	.....	2,188	208	2,655	4,789	1,949	1,713
Oliver.....	2,200	15,835	.....	.....	220	.....	341	8	452	540	1,768	224
Pembina.....	110	440,887	.....	.....	.....	.....	8,471	183	4,536	6,448	4,740	5,065
Pierce.....	.....	13,897	.....	150	.....	.....	260	70	777	617	32	102
Ramsey.....	4,608	86,211	.....	1,440	.....	.....	2,120	154	1,678	2,367	288	722
Ransom.....	1,082	79,445	23,750	2,860	150	.....	2,618	84	2,078	2,770	1,312	1,245
Richland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rolette.....	1,055	57,762	.....	.....	.....	.....	983	34	1,125	2,348	253	513
Sargent.....	2,487	121,475	.....	.....	.....	.....	3,016	182	2,310	3,908	1,180	1,766
Stark.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Steele.....	1,370	90,280	.....	24,192	1,654	.....	2,769	282	2,287	3,165	1,070	2,083
Stutsman.....	3,380	94,940	.....	5,100	65	.....	1,086	156	1,333	1,962	5,080	710
Towner.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trail.....	2,140	195,648	60	108,725	1,532	.....	7,109	881	4,590	4,824	2,008	3,814
Walsh.....	.....	249,337	.....	1,140	.....	.....	7,234	187	4,744	5,634	1,684	5,428
Ward.....	1,185	61,489	.....	.....	43	.....	527	11	1,172	1,341	1,924	261
Wells.....	1,140	11,780	.....	.....	.....	.....	776	85	779	1,076	2,159	322
Total.....	48,892	2,717,743	49,370	264,408	\$ 9,662	\$ 42,245	71,461	4,449	57,498	89,586	49,528	42,553

FARM STATISTICS—Continued.

COUNTIES.	Live Stock.						Orchards.		
	Number that have Died of Diseases During the Year 1888.						Number of Acres in Nurseries.	Number of Fruit Trees in Bearing.	Number of Fruit Trees not in Bearing.
	Horses.	Mules and Asses.	Milch Cows.	Other cattle.	Sheep.	Swine.			
Barnes.....	89	3	8	13	10	30	1,672	.....	21
Benson.....	39	12	15	40	8	24	188	7	.....
Billings.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bottineau.....	17	2	7	22	5	22	886	.....	.....
Burlington.....	13	2	28	37	23	84	11,435	1	1,313
Cass.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cavalier.....	106	5	27	49	19	144	879	.....	14
Dickey.....	174	13	49	94	31	50	2,916	.....	461
Eddy.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Emmons.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foster.....	15	.....	8	16	4	13	1,369	.....	.....
Grand Forks.....	283	19	69	79	28	342	4,449	70	1,122
Griggs.....	41	2	4	27	14	46	2,056	7	30
Kidder.....	17	3	2	8	8	2	22,063	.....	20
LaMoure.....	55	1	16	46	21	11	4,635	.....	617

Logan	8	.....	1	6	1	3	454	.....	.....	.....	.....	88
McHenry	8	2	10	119	.....	3	9,685	5,190	1	.....	.....	10
McIntosh	45	.....	11	27	19	36	400	3,160	.....	.....	.....	.....
McLean	16	2	1	15	125	2	6,289	409	.....	.....	.....	.....
Mercer .....	.....	.....	5	18	.....	7	1,012	16	.....	.....	.....	.....
Morton .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nelson	73	9	28	84	42	91	15,959	3,615	.....	.....	.....	.....
Oliver	7	1	1	30	219	9	4,298	28,127	.....	.....	.....	30
Pembina	339	13	50	64	108	73	57,585	13,944	1	.....	.....	90
Pierce	16	2	4	32	1	6	988	42	.....	.....	.....	.....
Ramsey	112	11	27	62	7	86	7,549	205	.....	.....	.....	3
Ransom	108	5	33	75	41	24	16,721	5,693	9	.....	.....	91
Richland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rolette	87	5	8	25	4	44	10,433	1,047	112	.....	.....	354
Sargent	105	14	29	48	32	94	22,307	3,455	7	.....	.....	705
Stark .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Steele	98	5	22	43	27	67	18,560	3,292	2	.....	.....	235
Stutsman	51	4	26	68	59	25	11,914	6,715	.....	.....	.....	50
Towner .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Traill	108	15	34	58	233	70	42,832	7,270	26	.....	.....	367
Walsh	310	13	70	167	51	204	57,564	3,070	126	.....	.....	62
Ward	9	.....	2	21	.....	14	18,101	6,378	.....	.....	.....	.....
Wells	34	1	.....	6	18	11	2,939	4,098	5	.....	.....	.....
Totals	2,368	164	607	1,404	1,158	1,637	\$ 480,898	148,164	374	3,938	.....	5,731

FARM STATISTICS—Continued.

COUNTIES.	Strawberries, Blackberries, etc., Acres of.	Vineyards, Number of Acres.	Value of Fruit Market- ed in the Year 1889.	Bees.		Number of Dogs.	Artificial Forests—Trees One Year Old and Over.				
				Number of Stands	Number Pounds Honey, 1889.		Number Acres Cottonwood.	Number Acres Box Elder.	Number Acres Ash.	Number Acres Maple.	Number Acres Other Varie- ties.
Barnes						334	233	351	29	2	28
Benson					8	206	57	144	17	.....	31
Billings											
Bottineau			1	.....	.....	254	11	15	10	7	7
Burlingame	3	1	175	12	.....	239	249	273	29	.....	8
Cass											
Cavalier						658	41	138	12	44	10
Dickey	6	.....	.....	.....	4	244	124	539	76	12	15
Eddy											
Emmons											
Foster						67	226	95	6	.....	.....
Grand Forks	62	1	75	3	34	831	758	633	89	13	269
Griggs						295	76	60	46	4	41
Kidder						104	85	259	51	.....	28
LaMoure						274	56	307	17	1	7
Logan						71	26	20	5	.....	.....

**OWNERSHIP OF REAL ESTATE BY INDIVIDUALS AS
DISTINGUISHED FROM CORPORATIONS.**

COUNTIES.	Assessed Valuation.	Amount Owned by Indi- vidual Own- ers.	Amount Owned by Cor- porate Own- ers.
Barnes			
Benson	\$ 402,545	\$ 389,071	\$ 13,474
Billings			
Bottineau	298,784	275,533	18,251
Burleigh	* 2,476,243	1,729,391	746,852
Cass			
Cavalier	594,178	536,108	58,070
Dickey	2,061,816	1,996,813	64,508
Eddy			
Emmons	530,450	342,491	187,959
Foster			
Grand Forks	3,418,253		
Griggs	1,359,890	1,123,375	*231,455
Kidder	1,171,978		
LaMoure	2,023,023	1,715,085	307,943
Logan	329,382	27,111	302,271
McHenry	197,167	102,295	4,872
McIntosh	157,514	154,665	3,449
McLean	709,955	556,623	153,332
Mercer	142,800	39,001	103,799
Morton			
Nelson	1,211,894	1,178,865	32,529
Oliver	197,730	44,705	153,025
Pembina	1,881,834		
Pierce	105,295	96,245	9,050
Ramsey	1,250,921	1,129,186	121,735
Ransom	1,042,563		
Richland			
Rolette	270,562	246,663	23,899
Sargent	1,199,432	1,074,825	124,607
Stark			

* \$145,595 in dispute.

OWNERSHIP OF REAL ESTATE BY INDIVIDUALS AS
DISTINGUISHED FROM CORPORATIONS.--*Continued.*

COUNTIES.	Assessed Valuation.	Amount Owned by Indi- vidual Own- ers.	Amount Owned by Cor- porate Own- ers.
Steele	\$ 1,982,718	\$ 1,784,825	\$ 198,040
Stutsman	125,005	.....	.....
Towner .....	.....	.....	.....
Trall .....	.....	.....	.....
Walsh .....	.....	.....	.....
Ward	118,542	98,539	20,003
Wells	429,900	.....	.....
Total	\$ 25,596,314	\$ 14,627,663	\$ 2,899,118

MUNICIPAL INDEBTEDNESS.

Name or Number of County, City, Town, Township or School District.	County Indebtedness.		City or Town.		Township.		School District.	
	Bonded.	Floating.	Bonded.	Floating.	Bonded.	Floating.	Bonded.	Floating.
Barnes	\$ 45,000	\$ 37,800	.....	.....	.....	.....	\$ 34,472	.....
Benson	27,500	2,760	.....	.....	.....	.....	13,400	\$ 1,064
Billings .....	.....	.....	.....	.....	.....	.....	.....	.....
Bottineau	12,000	13,844	.....	.....	.....	.....	.....	.....
Burlingame	59,600	100,259	\$ 77,500	\$ 55	.....	\$ 98	21,800	4,089
Cass	100,000	36,517	.....	.....	.....	.....	.....	.....
Cavalier	38,500	.....	.....	.....	.....	.....	12,500	6,013
Dickey	41,500	.....	.....	.....	.....	.....	37,350	10,769
Eddy	15,400	7,184	.....	.....	.....	.....	8,600	1,061
Emmons	20,000	20,928	.....	.....	.....	.....	18,700	2,248
Foster	27,000	925	.....	.....	.....	.....	9,900	464
Grand Forks	39,000	.....	142,500	.....	.....	.....	31,200	42,800
Griggs	62,000	17,475	.....	.....	.....	213	22,550	100
Kidder .....	.....	.....	.....	.....	.....	746	14,800	1,084
LaMoure .....	.....	.....	.....	.....	.....	4,000	15,725	1,339
Logan	8,500	4,707	.....	.....	.....	.....	2,100	400
McHenry	6,500	8,214	.....	.....	.....	.....	2,900	2,599
McIntosh	9,000	.....	.....	.....	.....	.....	2,000	715
McLean	19,000	11,092	.....	.....	.....	.....	2,400	44
Mercer .....	.....	19,946	.....	.....	.....	.....	5,000	8,870

VITAL STATISTICS.

COUNTIES.	Number of Births.			Total No. Marriages.	Number of Deaths.
	Males.	Females.	Total.		
Barnes					
Benson	81	31	62	13	12
Billings					
Bottineau	47	21	68	17	13
Burleigh	53	39	72	29	42
Cass					
Cavalier			107	40	37
Dickey					
Eddy					
Emmons					
Foster	14	13	27	5	2
Grand Forks			236	76	152
Griggs	39	43	82	11	28
Kidder	4	4	8	2	2
LaMoure	61	61	122	33	32
Logan		3	3	2	
McHenry	13	20	33	16	3
McIntosh	88	106	194	39	72
McLean	15	14	29	5	4
Mercer	16	6	22	7	2
Morton					
Nelson	69	61	130	25	23
Oliver	8	7	15	3	5
Pembina	150	153	303	79	104
Pierce	7	2	9	7	
Ramsey	30	24	54	9	11
Ransom	61	47	108	18	21
Richland					
Rolette	43	32	75	13	6
Sargent	67	66	133	43	25
Stark					
Steele	82	64	146	31	43
Stutsman	1	2	3	1	
Towner					
Traill	100	129	229	36	30
Walsh					
Ward	33	30	63	6	15
Wells	26	23	49	3	1
Totals	1,058	1,001	2,402	569	735

Males, per cent. (approximate) 51.2 Females, per cent. (approximate) 43.8

DEAF AND DUMB, BLIND, IDIOTIC, AND INSANE

IN THE STATE OF NORTH DAKOTA ON THE FIRST
DAY OF MAY, 1890.

NAMES.	Total Number.	Sex.		Color.	Deaf and Dumb.	Insane.	Blind.	Idiotic.	Have they Attended School?		Under 21 Years.	Over 21 Years.
		Male.	Female.						Yes.	No.		
Burleigh	2	1	1	White	....	1	....	1	....	....	....	....
Foster	3	2	1	"	2	....	....	1	1	2	1	2
Grand Forks....	8	6	2	"	6	1	1	....	....	....	....	....
Griggs.....	2	1	1	"	1	....	1	....	....	....	....	2
LaMoure	1	....	1	"	....	....	1	....	....	....	....	1
Nelson	5	2	3	"	3	....	2	....	4	1	3	2
Oliver	1	1	....	"	1	....	....	....	....	1	....	1
Pembina	9	5	4	"	3	1	3	2	....	....	2	7
Rolette	1	....	1	"	....	1	....	....	....	....	1	....
Sargent	2	....	2	"	....	....	1	1	....	2	....	2
Stutsman	2	1	1	"	2	....	....	....	2	....	....	2
Ward	1	1	....	"	....	....	1	....	....	....	1	....
Totals	37	20	17		18	4	10	5	7	6	8	19

The following counties made no report: Barnes, Benson, Billings, Bottineau, Cass, Cavalier, Dickey, Eddy, Emmons, Kidder, Logan, McHenry, McIntosh, McLean, Mercer, Morton, Pierce, Ramsey, Ransom, Richland, Stark, Steele, Towner, Traill, Walsh and Wells.

COUNTY FINANCES 1889-90.

COUNTIES.	Bonded Indebtedness 1889.	Bonded Indebtedness 1890.	Floating Indebtedness 1889.	Floating Indebtedness 1890.	Cash in Treasury June 30, 1889.	Cash in Treasury June 30, 1890.
Barnes	\$ 45,000	†	\$ 82,000	\$ 87,900	\$ 18,540	\$ 28,198
Benson	27,500	\$ 27,500	* 1,854	2,760	8,641	7,708
Billings			* 1,914	†	* 1,076	†
Botineau	12,000	12,000	6,980	18,944	* 1,153	86
Burleigh	59,600	59,600	100,853	100,259	16,022	15,510
Cass	100,000	100,000	85,076	96,517	41,868	66,490
Cavalier	26,000	38,500			7,550	5,613
Dickey	20,500	41,500			11,192	5,740
Eddy	15,400	15,400	* 3,054	7,134	1,516	1,888
Emmons	20,000	20,000	47,160	20,926	2,511	2,408
Foster	18,000	27,000	456	925	1,185	2,501
Grand Forks	36,000	38,000			47,185	58,134
Griggs	62,000	62,000	27,793	17,475	28,293	8,576
Kidder	* 37,000	†	* 11,559	†	* 1,894	†
LaMoure			* 9,501	†	* 6,203	†
Logan	8,500	8,500	5,840	4,706	350	981
McHenry	6,500	6,500		8,214	4,604	1,797
McIntosh	9,000	9,000			8,600	1,003

McLean	* 19,000	19,000	* 8,740	11,092	* 1,014	†
Mercer .....	.....	.....	18,128	19,946	* 511	†
Morton	* 65,000	†	* 22,000	†	* 14,000	†
Nelson	40,000	58,000	409	210	11,608	6,286
Oliver	8,000	8,000	* 2,808	31	879	1,800
Pembina	* 40,000	40,000	.....	.....	* 22,856	†
Pierce .....	.....	.....	551	6,010	.....	601
Ramsey	58,000	88,000	.....	5,000	9,421	7,259
Ransom .....	.....	8,500	* 14,167	38,854	13,064	7,907
Richland	* 28,906	†	* 2,714	†	* 8,144	†
Rolette	20,000	20,000	18,116	20,108	1,862	8,084
Sargent	10,000	18,000	25,000	26,000	8,000	5,600
Stark	* 15,000	† .....	.....	.....	* 1,006	†
Steele	20,000	20,000	5,366	4,164	19,701	19,745
Stutsman	* 68,500	†	* 16,526	†	* 3,821	†
Towner	* 21,900	†	* 8,948	†	* 987	†
Trull	100	100	918	1,409	25,798	27,870
Walsh	25,000	42,000	.....	.....	28,320	25,770
Ward .....	.....	1,500	1,895	4,197	4,011	941
Wells	* 9,500	†	* 1,803	†	* 840	†
Total	\$944,306	\$ 774,600	\$480,557	\$82,581	\$378,174	\$ 808,764
† Estimates .....	.....	† 285,206	.....	† 74,960	.....	† 61,852
Grand total	\$944,306	\$ 1,059,806	\$480,557	\$458,941	\$378,174	\$ 867,598

* Hagerly. † Counties not reported estimated same as reported for 1889.

CASH AND SUMMARY OF INDEBTEDNESS OF COUNTIES—Continued.

CASH IN TREASURY JUNE 30th.

COUNTIES.	1885.	1887.	1888.	1889.	1890.
Barnes.....	.....	\$ 27,750 48	\$ 22,981 10	\$ 18,540 10	\$ 28,196 54
Benson	\$ 940 62	7,977 27	8,887 21	9,641 24	7,708 53
Billings.....	.....	1,983 00	.....	\$1,076 00	.....
Bottineau.....	.....	903 00	.....	\$1,153 00	86 71
Burlingh.....	.....	14,800 00	.....	16,022 00	15,510 06
Cass	28,886 55	73,806 00	64,197 19	41,888 63	66,490 28
Cavalier .....	.....	.....	.....	7,550 76	5,613 60
Dickey.....	6,084 86	10,507 46	7,934 55	11,192 65	5,740 07
Eddy	4,014 76	2,922 09	2,208 09	1,516 19	1,888 63
Emmons.....	4,892 32	2,846 24	1,962 92	2,511 39	2,408 17
Foster	2,805 47	1,247 00	4,888 45	1,185 80	2,501 77
Grand Forks .....	.....	49,608 28	37,880 71	47,185 99	55,534 30
Griggs.....	4,259 70	2,867 42	7,200 38	28,283 24	8,576 40
Kidder.....	.....	11,500 00	.....	\$1,894 00	.....
LaMoure .....	.....	17,806 00	.....	\$6,208 00	.....
Logan.....	.....	1,134 88	522 18	350 00	981 78
McHenry.....	.....	1,318 73	1,458 89	4,604 89	1,797 78
McIntosh.....	.....	682 65	987 50	8,000 62	1,013 90
McLean .....	.....	.....	.....	\$1,014 00	.....
Mercer .....	.....	.....	.....	\$111 00	.....

BARNES COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Barnes County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	\$ 2,537,994	20.5	\$2 82	.....	.....	.....	.....	.....	.....	\$ 65,000	\$ 25,000	.....	* 1,400,842
1886	2,972,660	18.0	\$ 40	.....	.....	.....	.....	.....	.....	55,000	34,000	\$ 27,750 48	* 1,188,182
1887	3,002,162	15.5	\$ 30	.....	.....	.....	.....	.....	.....	55,000	37,000	22,991 10	† 719,225
1888	3,285,619	18.6	\$ 66	.....	.....	.....	.....	.....	.....	45,000	32,000	18,540 10	669,608
1889	3,182,450	17.3	\$ 51	.....	.....	.....	.....	.....	.....	.....	37,800	23,198 54	1,121,116
1890	3,945,512	17.2	\$ 87	.....	.....	.....	.....	114,408	† 710,114	.....	.....	.....	.....

* McClure. † Hagerly.

ASSESSMENT OF 1890.

Number of farms in county.....	.....	Assessed valuation.....	\$ 2,746,083
Number of town or city lots.....	.....	Assessed valuation.....	.....
Number of horses	4,652	Assessed valuation.....	212,409
Number of mules and asses.....	269	Assessed valuation.....	11,580
Number of cattle	7,832	Assessed valuation.....	90,059
Number of sheep	1,967	Assessed valuation.....	4,718
Number of swine.....	1,795	Assessed valuation.....	5,228
Number of carriages	1,560	Assessed valuation.....	21,784

Total assessed valuation of personal property.....	\$ 3,045,515
Total assessed valuation of merchandise.....	60,695
Total assessed valuation of moneys and credits.....	46,048
Total assessed valuation of furniture.....	1,540

‡ State Board of Equalization.

County organized August 5, 1878.

Area of county, 967,680 acres.

BENSON COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Benson County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands Per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	\$ 323,065	15.3	\$5 60	.....	.....	.....	.....	.....	5,780	\$ 7,500	\$ 5,068 25	\$ 948 62	.....
1885	346,702	15.7	8 78	386	.....	\$ 701	\$ 1,048	.....	37,928	.....	.....	.....	.....
1886	469,601	13.3	8 68	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	644,116	13.0	4 10	3,410	.....	1,132	2,676	.....	88,724	17,500	6,075 00	7,917 27	.....
1888	705,797	14.2	3 90	4,227	\$ 2,121	1,560	4,241	23,761	*84,885	17,500	.....	8,887 21	155,872
1889	584,174	14.2	4 25	4,394	328	1,284	3,508	37,500	*74,015	27,500	.....	8,641 24	162,901
1890	627,628	15.0	3 84	.....	.....	.....	.....	49,075	98,470	27,500	2,760 23	7,703 18	261,500

*Loss occasioned by annexation of disputed territory to Ramsey county. †Hagarty. ‡McClure.

ASSESSMENT OF 1890.

Number of farms in county	615	Assessed valuation	\$ 371,589
Number of town or city lots	4,982	Assessed valuation	34,106
Number of horses	1,029	Assessed valuation	60,876
Number of mules and asses	97	Assessed valuation	5,820
Number of cattle	3,124	Assessed valuation	62,777
Number of sheep	150	Assessed valuation	297
Number of swine	327	Assessed valuation	1,391
Number of carriages	578	Assessed valuation	9,925

Total assessed valuation of personal property	\$ 267,606
Total assessed valuation of merchandise	20,189
Total assessed valuation of moneys and credits	24,033
Total assessed valuation of furniture	200

County organized June, 1884.

Area of county, 564,480 acres.

BILLINGS COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Billings County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1886	\$ 497,307	20.9	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	470,656	17.7	\$1 00	\$ 537 53	.....	\$ 851 55	\$ 8,342 66	.....	.....	.....	.....	.....	.....
1888	249,137	17.5	4 00	1,191 24	.....	2,471 55	2,010 88	.....	\$ 8,200 03	.....	.....	.....	.....
1889	245,084	11.6	1 21	431 89	.....	498 45	9,327 46	.....	.....	.....	.....	.....	.....
1890	412,904	10.5	60	435 68	.....	1,073 99	387 13	.....	*43,185	.....	.....	.....	.....

* State Board of Equalization.

† Farming not carried on in Billings county.

ASSESSMENT OF 1890.

Number of farms in county.....	.....	Assessed valuation .....	.....
Number of town or city lots.....	.....	Assessed valuation .....	.....
Number of horses.....	4,078	Assessed valuation	\$ 107,760
Number of mules and asses.....	6	Assessed valuation	270
Number of cattle.....	18,812	Assessed valuation	291,700
Number of sheep.....	1,617	Assessed valuation	3,234
Number of swine	20	Assessed valuation	100
Number of carriages	50	Assessed valuation	1,005

Total assessed valuation of personal property	\$ 874,614
Total assessed valuation of merchandise.....	500
Total assessed valuation of moneys and credits.....	20
Total assessed valuation of furniture.....	

County organized October 25, 1888.

BOTTINEAU COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Bottineau County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crops.	Number of Acres Deeded Land.	Bonded Indebted- ness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	...	...	...	...	...	...	...	...	...	...	...	...	...
1881	...	...	...	...	...	...	...	...	...	...	...	...	...
1882	...	...	...	...	...	...	...	...	...	...	...	...	...
1883	...	...	...	...	...	...	...	...	...	...	...	...	...
1884	...	...	...	...	...	...	...	...	...	...	...	...	...
1885	66,564	14.3	\$5.00	\$ 823 91	...	\$ 522 97	\$ 173 95	...	\$ 123	...	...	...	...
1886	105,830	8.7	...	...	...	...	...	...	...	...	...	...	...
1887	184,866	6.6	3 00	1,760 66	...	366 05	797 68	...	16,885	...	...	...	\$ 150,000
1888	316,323	8.6	7 63	2,230 59	...	230 10	1,398 10	\$ 14,547	...	\$ 12,000	...	...	+ 94,795
1889	432,298	10.6	3 45	1,826 12	...	184 87	570 79	34,969	42,833	12,000	\$ 6,980 24	...	121,469
1890	577,818	14.0	2 80	...	...	...	...	47,757	* 76,487	12,000	13,344 00	\$ 86 71	217,584

* State Board of Equalization, 76,587. + Hagerty.

ASSESSMENT OF 1890.

Number of farms in county	486	Assessed valuation	249,777
Number of town or city lots	604	Assessed valuation	‡ 55,549
Number of horses	1,244	Assessed valuation	70,497
Number of mules and asses	40	Assessed valuation	3,070
Number of cattle	3,772	Assessed valuation	73,980
Number of sheep	163	Assessed valuation	963
Number of swine	486	Assessed valuation	1,544
Number of carriages	657	Assessed valuation	12,954

Total assessed valuation of personal property	\$ 268,427
Total assessed valuation of merchandise	22,806
Total assessed valuation of moneys and credits	29,056
Total assessed valuation of furniture	6,045

County organized July 17, 1884.

Area of county, 852,480 acres.

‡ State Board of Equalization.

ASSESSMENT OF 1890.

Number of farms in county.....	900	Assessed valuation.....	\$ 90,000
Number of town or city lots	20,296	Assessed valuation.....	933,850
Number of horses	1,876	Assessed valuation.....	111,848
Number of mules and asses.....	128	Assessed valuation.....	8,718
Number of cattle.....	8,184	Assessed valuation.....	74,313
Number of sheep.....	2,472	Assessed valuation.....	7,449
Number of swine.....	1,174	Assessed valuation.....	2,605
Number of carriages	887	Assessed valuation.....	13,514

Total assessed valuation of personal property.....	\$ 608,876
Total assessed valuation of merchandise.....	98,701
Total assessed valuation of moneys and credits.....	14,555
Total assessed valuation of furniture	53,809

County organized, 1873.

Area of county, 1,024,000 acres.

CASS COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Cass County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation of Farm Lands Per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Decided Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	\$ 2,965,354	13.5	\$2 74	.....	.....	.....	.....	.....	667,337	.....	.....	.....	1,012,565
1881	5,060,172	12.1	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	4,738,805	7	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	6,539,600	8	8 95	.....	.....	.....	.....	.....	886,845	.....	.....	.....	.....
1884	6,642,136	13	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	13,851,618	5	7 85	.....	.....	.....	.....	.....	896,856	\$ 130,000	\$52,316 49	\$ 26,868 55	5,963,880
1886	11,833,739	5.4	....	.....	.....	.....	.....	356,947	.....	.....	.....	.....	.....
1887	12,177,455	8.5	6 60	.....	.....	.....	.....	.....	981,905	155,000	56,020 00	73,808 00	4,741,750
1888	9,743,520	10	5 72	.....	.....	.....	.....	433,600	957,982	127,000	58,654 08	64,197 19	*3,179,068
1889	10,134,880	5.6	5 56	.....	.....	.....	.....	*463,659	987,316	100,000	35,076 77	41,868 63	*3,008,256
1890	9,968,370	....	6 55	.....	.....	.....	.....	442,537	971,177	100,030	36,517 67	66,490 28	.....

*Hagerty.

ASSESSMENT OF 1890.

Number of farms in county.....	1,941	Assessed valuation .....	.....
Number of town or city lots .....	.....	Assessed valuation	\$ †2,491,330
Number of horses	14,391	Assessed valuation ..	573,445
Number of mules and asses.....	1,627	Assessed valuation	73,430
Number of cattle	14,415	Assessed valuation	126,261
Number of sheep	2,004	Assessed valuation	3,748
Number of swine.....	5,773	Assessed valuation	12,150
Number of carriages.....	5,296	Assessed valuation	86,642

Total assessed valuation of personal property.....	\$ 2,582,776
Total assessed valuation of merchandise.....	338,260
Total assessed valuation of moneys and credits	130,450
Total assessed valuation of furniture	146,040

Acres of timber, 6,970.

County organized October 27, 1873.

Area of county, 1,536,640 acres.

†State Board of Equalization.

CAVALIER COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Cavalier County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deded Land.	Bonded Indebted- ness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	..	..	..	..	..	..	..	..	..	..	..	..	..
1881	..	..	..	..	..	..	..	..	..	..	..	..	..
1882	..	..	..	..	..	..	..	..	..	..	..	..	..
1883	..	..	..	..	..	..	..	..	..	..	..	..	..
1884	..	..	..	..	..	..	..	..	..	..	..	..	..
1885	\$ 289,724	* 6.0	\$1 50	..	..	..	..	..	76,864	..	..	..	+ 340,028
1886	455,824	* 7.5	..	..	..	..	..	..	..	..	..	..	..
1887	528,915	* 9.0	2 0	..	..	..	..	..	..	16,000	..	..	11,104,000
1888	613,844	* 7.5	1 75	..	..	..	..	57,174	..	16,000	..	..	3317,691
1889	778,656	* 9.0	2 00	..	..	..	..	73,386	141,347	28,000	..	\$ 7,550 76	455,277
1890	1,266,701	*10.0	3 31	..	..	..	..	85,806	194,286	38,500	..	5,613 60	906,606

+ McClure. † Hagerly. * County levy only.

ASSESSMENT OF 1890.

Number of farms in county.....	1,214	Assessed valuation	\$ 677,986
Number of town or city lots.....		Assessed valuation	92,479
Number of horses	2,950	Assessed valuation	153,858
Number of mules and asses.....	138	Assessed valuation	7,551
Number of cattle	6,023	Assessed valuation	86,299
Number of sheep	782	Assessed valuation	1,581
Number of swine.....	1,464	Assessed valuation	4,180
Number of carriages	1,239	Assessed valuation	20,110

Total assessed valuation of personal property.....	\$ 490,286
Total assessed valuation of merchandise.....	43,496
Total assessed valuation of moneys and credits.....	23,856
Total assessed valuation of furniture.....	15,053

County organized July 8, 1884.

Area of county, 437,280 acres.

DICKEY COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Dickey County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purpose.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	\$ 260,692	...	\$ 40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	1,204,375	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	1,643,280	...	\$ 46	.....	.....	.....	.....	.....	.....	\$ 20,500	.....	\$ 6,084 86	+ 311,886
1886	1,723,400	...	...	.....	.....	.....	.....	.....	.....	20,500	.....	.....	.....
1887	1,849,800	...	\$ 76	.....	.....	.....	.....	.....	.....	20,500	.....	10,507 46	+ 1,558,822
1888	2,045,885	...	\$ 60	\$24,992 00	\$ 6,351 84	\$ 5,983 67	\$10,280 48	98,327	.....	20,500	.....	7,954 55	* 847,247
1889	2,273,608	...	\$ 65	28,463 53	8,116 11	6,259 94	12,912 50	+ 121,063	.....	20,500	.....	11,192 65	505,698
1890	2,920,197	...	\$ 74	.....	.....	.....	.....	128,613	.....	41,500	.....	5,740 07	844,298

* Hagerly. † Hagerly gives 189,187. ‡ McClure.

ASSESSMENT OF 1890.

Number of farms in county .....	.....	Assessed valuation	\$ 1,874,832
Number of town or city lots .....	.....	Assessed valuation	208,484
Number of horses	3,514	Assessed valuation	208,723
Number of mules and asses	258	Assessed valuation	14,070
Number of cattle	7,677	Assessed valuation	92,954
Number of sheep	2,815	Assessed valuation	5,699
Number of swine	1,288	Assessed valuation	4,425
Number of carriages	1,489	Assessed valuation	28,790

Total assessed valuation of personal property	\$ 847,887
Total assessed valuation of merchandise	69,784
Total assessed valuation of moneys and credits	21,022
Total assessed valuation of furniture	21,799

County organized July 1, 1882.

Area of county, 737,280 acres.

EDDY COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Eddy County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or County Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Dedicated Land.	Bonded Indebted- ness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30th.	Number of Bushels of Wheat Raised in County.
1880	.....	..	..	.....	.....	.....	.....	.....	..	.....	.....	.....	.....
1881	.....	..	..	.....	.....	.....	.....	.....	..	.....	.....	.....	.....
1882	.....	..	..	.....	.....	.....	.....	.....	..	.....	.....	.....	.....
1883	.....	..	..	.....	.....	.....	.....	.....	..	.....	.....	.....	.....
1884	.....	..	..	.....	.....	.....	.....	.....	..	.....	.....	.....	.....
1885	\$ *217,490	..	..	.....	.....	.....	.....	.....	..	\$ 2,500	.....	\$ 4,014 76	\$ 98,736
1886	*870,485	..	..	.....	.....	.....	.....	.....	..	.....	.....	2,922 09	*283,000
1887	*591,303	..	\$3 81	.....	.....	.....	.....	\$ 27,678	.....	4,900	.....	2,208 09	133,965
1888	612,103	..	..	.....	.....	.....	.....	40,228	.....	15,400	.....	1,516 19	119,073
1889	772,113	16.1	..	.....	.....	.....	.....	.....	.....	15,400	.....	1,838 63	.....
1890	676,294	18.5	8 37	.....	.....	.....	.....	.....	†135,017	.....	\$ 7,134 07	.....	.....

* McClure. † State Board of Equalization.

ASSESSMENT OF 1890.

Number of farms in county.....	492	Assessed valuation	\$ 442,430
Number of town or city lots.....	1,074	Assessed valuation	†47,746
Number of horses.....	1,008	Assessed valuation	71,405
Number of mules and asses.....	64	Assessed valuation	3,980
Number of cattle	3,394	Assessed valuation	37,268
Number of sheep	67	Assessed valuation	188
Number of swine	451	Assessed valuation	1,791
Number of carriages.....	291	Assessed valuation	7,326

Total assessed valuation of personal property.....	\$ 34,732
Total assessed valuation of merchandise.....	9,526
Total assessed valuation of moneys and credits	6,120
Total assessed valuation of furniture	3,745

County organized April 15, 1885.

Area of county 414,720 acres.

† State Board of Equalization.

EMMONS COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Emmons county Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Decided Land.	Bonded Indebtedness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	\$ 128,504	14.8	.....	.....	.....	.....	.....	\$ 500	.....	.....	.....	.....	.....
1885	267,992	15.9	\$3 00	\$ 3,487 02	.....	\$ 510 64	\$ 2,641 02	2,767	\$ 15,950	.....	\$ 9,418 24	\$ 4,862 32	.....
1886	327,347	14.9	.....	.....	.....	.....	.....	8,476	.....	.....	.....	.....	.....
1887	755,454	19.8	3 50	3,323 93	.....	819 88	3,394 40	10,380	17,210	.....	28,908 46	2,346 24	\$ 168,000
1888	745,789	21.8	2 35	5,221 66	.....	869 61	5,561 94	12,401	27,190	\$ 20,000	28,699 81	1,992 92	68,885
1889	1,083,900	22.5	3 70	3,168 70	.....	877 51	9,164 58	14,909	34,942	20,000	47,160 18	2,511 39	58,608
1890	811,549	16.0	2 05	3,328 08	.....	454 77	2,988 85	31,110	* 37,822	20,000	20,928 83	2,403 17	.....

† McClure, * State Board of Equalization, 807,681.

ASSESSMENT OF 1890.

Number of farms in county.....	495	Assessed valuation.....	\$ 287,825
Number of town or city lots.....	4,615	Assessed valuation.....	2,824
Number of horses	2,491	Assessed valuation.....	106,971
Number of mules and asses.....	67	Assessed valuation.....	3,957
Number of cattle	6,083	Assessed valuation.....	82,204
Number of sheep	8,628	Assessed valuation.....	17,168
Number of swine.....	1,137	Assessed valuation.....	21,097
Number of carriages	586	Assessed valuation.....	12,051

Total assessed valuation of personal property.....	\$ 281,159
Total assessed valuation of merchandise.....	2,494
Total assessed valuation of moneys and credits.....	4,284
Total assessed valuation of furniture.....	6,526

County organized November 9, 1883.

Area of county, 988,040 acres.

FOSTER COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Foster County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	\$ 452,250	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	590,111	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$ 9,045 83	\$ 2,805 47	133,992
1886	665,739	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	946,269	.....	\$2 98	.....	.....	.....	.....	.....	.....	.....	.....	.....	550,188
1888	978,787	.....	.....	.....	.....	.....	.....	27,842	.....	\$ 18,000	55 41	4,968 45	216,885
1889	1,090,000	.....	.....	.....	.....	.....	.....	* 38,512	.....	18,000	456 92	1,185 30	129,650
1890	1,057,874	10.5	8 34	.....	.....	.....	.....	34,699	+ 264,124	27,000	925 78	2,501 77	225,040

† State Board of Equalization. * Hagerty's report for 1889 gives \$8,265.

ASSESSMENT OF 1890.

Number of farms in county.....	.....	Assessed valuation	\$ 801,687
Number of town or city lots .....	.....	Assessed valuation	21,918
Number of horses	1,105	Assessed valuation	61,579
Number of mules and asses.....	150	Assessed valuation	8,555
Number of cattle	1,848	Assessed valuation	31,274
Number of sheep	939	Assessed valuation	1,912
Number of swine	256	Assessed valuation	1,120
Number of carriages.....	359	Assessed valuation	5,232

Total assessed valuation of personal property...	\$ 180,754
Total assessed valuation of merchandise.....	12,100
Total assessed valuation of moneys and credits	21,155
Total assessed valuation of furniture	2,226

County organized September 27, 1883.

Area of county, 414,720 acres.

GRAND FORKS COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Grand Forks County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands Per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Decided Land.	Bonded Indebted- ness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	98,382
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	\$4 82	.....	.....	.....	.....	.....	450,721	.....	.....	.....	.....
1884	\$ 3,649,704	15.2	2 90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	4,390,884	10.9	3 65	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1886	4,655,071	8.3	3 76	.....	.....	.....	.....	.....	615,878	\$ 39,000	.....	.....	3,615,741
1887	5,014,586	8.9	3 75	\$35,360 79	\$20,905 39	\$18,108 01	\$54,824 74	.....	672,435	39,000	.....	\$40,608 23	5,460,000
1888	5,144,243	13.5	3 65	44,086 19	44,186 83	27,435 61	46,484 26	253,329	686,712	39,000	.....	37,830 71	2,026,270
1889	5,842,067	12.3	3 94	36,322 41	43,116 84	24,577 00	57,351 29	306,378	721,274	39,000	.....	47,185 99	2,765,681
1890	8,256,920	10.5	6 44	.....	.....	.....	.....	353,187	736,036	39,000	.....	58,534 30	2,537,824

ASSESSMENT OF 1890.

Number of farms in county.....	.....	Assessed valuation	\$ 4,487,395
Number of town or city lots.....	.....	Assessed valuation	2,272,534
Number of horses.....	11,088	Assessed valuation	583,047
Number of mules and asses.....	705	Assessed valuation	89,527
Number of cattle.....	13,017	Assessed valuation	143,812
Number of sheep.....	2,354	Assessed valuation	4,234
Number of swine	4,496	Assessed valuation	14,275
Number of carriages	4,298	Assessed valuation	54,331

Total assessed valuation of personal property	\$ 2,924,468
Total assessed valuation of merchandise.....	308,645
Total assessed valuation of moneys and credits.....	1,232,545
Total assessed valuation of furniture.....	110,237

Acres of timber, 10,400.

County organized January 4, 1873.

Area of county, 898,560 acres.

GRIGGS COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Griggs County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	\$ 1,288,891	13.4	....	\$ 1,885 48	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	8,533,968	16.3	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	1,015,098	17.0	....	.....	.....	.....	.....	.....	.....	\$ 30,000	.....	\$ 4,259 70	428,714
1886	.....	15.1	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	1,631,544	17.1	\$4 23	.....	.....	.....	.....	.....	.....	30,000	.....	2,367 42	444,864
1888	1,639,093	15.6	....	.....	.....	.....	.....	55,782	.....	50,000	\$42,015 26	7,200 38	190,992
1889	1,566,523	16.0	....	2,638 22	.....	\$ 4,067 67	\$12,899 88	51,300	.....	62,000	27,793 80	23,263 24	*805,014
1890	1,742,798	....	3 89	1,430 36	.....	1,873 78	7,535 49	58,790	308,396	62,000	17,475 82	8,576 40	244,180

* Assessor's returns; County Auditor gives \$72,655.

ASSESSMENT OF 1890.

Number of farms in county .....	.....	Assessed valuation .....	.....
Number of town or city lots	2,702	Assessed valuation	\$ †104,216
Number of horses	1,750	Assessed valuation	95,820
Number of mules and asses	158	Assessed valuation	8,785
Number of cattle	5,778	Assessed valuation	68,617
Number of sheep	1,328	Assessed valuation	2,947
Number of swine	986	Assessed valuation	8,082
Number of carriages	775	Assessed valuation	15,501

Total assessed valuation of personal property..... \$ 382,968

Total assessed valuation of merchandise 49,080

Total assessed valuation of moneys and credits 36,081

Total assessed valuation of furniture..... 9,616

County organized June 10, 1882.

Area of county, 460,800 acres.

† Taken from report of State Board of Equalization.

LOGAN COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Logan County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Decded Land.	Bonded Indebted- ness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	4,831	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	.....	.....	.....	8,175	.....	.....	.....	.....
1885	\$ 49,269	15.	\$4 40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1886	87,353	44.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	661,447	18.	2 50	\$ 1,212 52	.....	\$ 101 86	\$ 477 59	.....	9,958	.....	\$ 8,591 55	\$ 1,154 88	6,776
1888	1,016,073	25.7	2 98	146 59	.....	192 02	591 44	2,809	10,600	.....	4,895 02	523 18	13,840
1889	287,049	30.8	2 16	559 72	.....	118 41	496 78	2,475	10,840	\$ 8,500	5,340 20	350 09	9,715
1890	383,189	21.5	1 25	482 55	.....	105 91	467 85	8,711	* 11,060	8,500	4,706 97	981 73	10,400

* State Board of Equalization.

ASSESSMENT OF 1890.

Number of farms in county.....	82	Assessed valuation.....	\$ 9,940
Number of town or city lots	1,524	Assessed valuation.....	* 4,502
Number of horses	259	Assessed valuation.....	12,868
Number of mules and asses.....	6	Assessed valuation.....	800
Number of cattle.....	908	Assessed valuation.....	16,174
Number of sheep.....	770	Assessed valuation.....	1,100
Number of swine.....	89	Assessed valuation.....	226
Number of carriages	128	Assessed valuation.....	2,778

Total assessed valuation of personal property..... \$ 52,258

Total assessed valuation of merchandise..... 1,000

Total assessed valuation of moneys and credits..... 4,082

Total assessed valuation of furniture 2,370

County organized September 8, 1894.

Area of county, 645,120 acres.

* State Board of Equalization.

McHENRY COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	McHenry County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation of Farm Lands Per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	\$ 50,737	8.2	.....	\$ 236 00	.....	\$ 155 42	\$ 760 43	250	1,280	.....	.....	.....	1,000
1886	76,691	8.0	.....	.....	.....	.....	.....	850	.....	.....	.....	.....	3,500
1887	182,427	12.5	\$2 94	2,663 17	.....	441 56	2,943 13	1,000	10,566	\$ 6,500	.....	\$ 1,813 73	10,000
1888	180,888	16.0	1 81	3,898 24	.....	611 79	5,796 53	3,753	21,322	6,500	.....	1,658 89	20,746
1889	280,882	12.5	2 61	1,850 88	.....	269 78	866 21	8,143	82,540	6,500	.....	4,604 89	25,885
1890	307,954	17.0	2 21	.....	.....	.....	.....	12,061	40,225	6,500	\$ 8,214 49	1,797 73	35,625

ASSESSMENT OF 1890.

Number of farms in county.....	260	Assessed valuation	\$ 89,950
Number of town or city lots	389	Assessed valuation	17,217
Number of horses	1,095	Assessed valuation	88,978
Number of mules and asses.....	43	Assessed valuation	2,285
Number of cattle	6,451	Assessed valuation	76,817
Number of sheep	2,625	Assessed valuation	5,085
Number of swine.....	258	Assessed valuation	998
Number of carriages	290	Assessed valuation	5,005

Total assessed valuation of personal property	\$ 200,787
Total assessed valuation of merchandise.....	9,215
Total assessed valuation of moneys and credits.....	39,654
Total assessed valuation of furniture	3,800

County organized April 15, 1884.

Acres of timber, 6,173.

MCINTOSH COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	McIntosh County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deded Land.	Bonded Indebted- ness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	\$ 25,008	14.9	\$3 50	.....	.....	.....	.....	.....	968	.....	.....	.....	.....
1886	88,752	15.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	\$ 682 66	43,946
1887	407,924	15.9	1 80	\$ 824 19	.....	\$ 882 54	\$ 1,156 25	15,317	44,021	.....	.....	987 50	126,715
1888	468,860	15.3	2 24	1,992 52	.....	1,007 52	8,085 02	28,614	56,457	.....	.....	8,900 62	104,862
1889	552,967	15.7	2 25	1,429 90	.....	789 13	12,994 22	38,444	68,085	\$ 9,000	.....	.....	.....
1890	465,025	16.5	2 56	.....	.....	.....	.....	48,060	75,078	9,000	.....	1,008 90	78,665

ASSESSMENT OF 1890.

Number of farms in county.....	448	Assessed valuation	\$ 188,500
Number of town or city lots.....	1,284	Assessed valuation	4,811
Number of horses.....	1,789	Assessed valuation	85,581
Number of mules and asses.....	19	Assessed valuation	1,045
Number of cattle	4,474	Assessed valuation	82,878
Number of sheep	484	Assessed valuation	810
Number of swine	1,263	Assessed valuation	2,203
Number of carriages.....	665	Assessed valuation	12,320

Total assessed valuation of personal property.....	\$ 267,714
Total assessed valuation of merchandise.....	3,220
Total assessed valuation of moneys and credits	15,975
Total assessed valuation of furniture	4,073

County organized Oct. 4, 1884.

Area of county 645,120 acres.

MERCER COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Mercer County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation per Farm Lands per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded. Indebtedness of County.	Floating. Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	\$ 63,000 00	19.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,197
1886	69,411 50	16.6	.....	.....	.....	.....	.....	.....	.....	.....	\$ 5,840 14	.....	.....
1887	349,786 75	15.4	\$2 80	.....	.....	.....	.....	.....	.....	.....	11,876 80	.....	9,970
1888	327,117 00	17.6	.....	.....	.....	.....	.....	1,813	.....	.....	15,844 29	.....	3,885
1889	68,118 75	16.8	1 70	.....	.....	.....	.....	3,206	17,125	.....	18,126 00	.....	2,450
1890	169,283 00	.....	1 72	.....	.....	.....	.....	3,113	103,734	.....	19,946 34	.....	17,985

ASSESSMENT OF 1890.

Number of farms in county.....	.....	Assessed valuation	\$ 142,800
Number of town or city lots.....	.....	Assessed valuation	6,869
Number of horses	212	Assessed valuation	4,446
Number of mules and asses.....	2	Assessed valuation	75
Number of cattle	906	Assessed valuation	12,561
Number of sheep	850	Assessed valuation	1,700
Number of swine.....	207	Assessed valuation	331
Number of carriages	88	Assessed valuation	1,433

Total assessed valuation of personal property.....	\$ 24,696
Total assessed valuation of merchandise.....	580
Total assessed valuation of moneys and credits.....	659
Total assessed valuation of furniture.....	815

County organized November 6, 1883.

Area of county, 691,200 acres.

NELSON COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Nelson County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Decided Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	...	...	...	...	...	...	...	...	...	...	...	...
1881	.....	...	...	...	...	...	...	...	...	...	...	...	...
1882	.....	...	...	...	...	...	...	...	...	...	...	...	...
1883	\$ 214,798	14.	...	...	...	...	...	...	...	...	...	...	...
1884	771,828	17.	...	...	...	...	...	...	134,077	...	...	...	...
1885	897,050	18.	\$2 90	...	...	...	...	...	198,703	\$ 80,000	\$10,283 00	\$ 5,747 74	182,525
1886	1,008,297	16.	...	...	...	...	...	...	233,039	80,000	...	...	...
1887	1,108,738	14.	2 98	\$10,959 03	\$ 4,124 57	\$ 2,593 26	\$12,149 04	...	259,077	80,000	13,816 00	7,045 44	980,878
1888	1,304,654	13.	2 96	16,971 73	6,210 84	3,449 35	12,117 49	66,441	276,726	80,000	13,237 00	2,323 42	55,820
1889	1,548,989	13.	3 51	12,017 10	4,773 89	3,005 14	10,381 62	81,133	904,448	40,000	409 00	11,808 31	801,269
1890	1,738,082	....	\$ 51	13,534 50	4,785 84	3,678 95	12,727 41	88,861	831,435	58,000	210 00	6,266 55	441,424

ASSESSMENT OF 1890.

Number of farms in county.....	.....	Assessed valuation	\$ 1,211,894
Number of town or city lots.....	3,324	Assessed valuation	87,022.
Number of horses.....	22,082	Assessed valuation	125,406.
Number of mules and asses.....	225	Assessed valuation	18,358.
Number of cattle.....	6,688	Assessed valuation	88,083.
Number of sheep.....	1,474	Assessed valuation	2,827
Number of swine	1,198	Assessed valuation	2,961
Number of carriages	1,284	Assessed valuation	19,582

Total assessed valuation of personal property	\$ 467,527
Total assessed valuation of merchandise.....	22,773.
Total assessed valuation of moneys and credits.....	27,940
Total assessed valuation of furniture.....	17,783.

County organized June 9, 1883.

Area of county, 645,120 acres.

OLIVER COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Oliver County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands Per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	..	..	..	..	..	..	..	..	..	..	..	..	..
1881	..	..	..	..	..	..	..	..	..	..	..	..	..
1882	..	..	..	..	..	..	..	..	..	..	..	..	..
1883	..	..	..	..	..	..	..	..	..	..	..	..	..
1884	..	..	..	..	..	..	..	..	..	..	..	..	..
1885	..	..	..	..	..	..	..	..	..	..	..	..	1,816
1886	\$ 84,000	9.9	..	..	..	..	..	..	..	..	..	..	..
1887	522,850	12.6	\$3 50	\$ 1,052 00	..	\$ 109 19	\$ 345 29	..	..	..	\$ 2,762 00	\$ 387 00	6,000
1888	533,570	17.2	3 50	877 00	..	488 25	308 59	2,200	..	\$ 3,000	..	243 00	5,793
1889	408,048	15.0	2 50	759 00	..	228 00	4,900 00	2,578	..	3,000	*2,388 00	879 00	2,994
1890	246,918	..	2 50	..	..	..	..	2,356	..	8,000	31 00	1,900 00	5,725

*Hagerty.

ASSESSMENT OF 1890.

Number of farms in county.....	86	Assessed valuation	\$ 34,400
Number of town or city lots .....	.....	Assessed valuation	† 469
Number of horses	386	Assessed valuation	17,913
Number of mules and asses	9	Assessed valuation	494
Number of cattle	1,153	Assessed valuation	14,368
Number of sheep	4,728	Assessed valuation	9,575
Number of swine.....	192	Assessed valuation	538
Number of carriages.....	117	Assessed valuation	1,876

Total assessed valuation of personal property..... \$ 53,928

Total assessed valuation of merchandise.....

Total assessed valuation of moneys and credits 1,370

Total assessed valuation of furniture 1,557

County organized March 12, 1885.

Area of county, 460,800 acres.

† State Board of Equalization.

PIERCE COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Pierce County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purpose.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880													
1881													
1882													
1883													
1884													
1885													
1886													
1887													
1888								7,828	.....	.....	.....	.....	66,600
1889	\$ 172,784	21.9	\$3 14	\$ 479 47	.....	\$ 114 82	\$ 862 22	11,235	22,898	.....	\$ 551 22	.....	39,743
1890	208,426	19.0	2 30	.....	.....	.....	.....	19,607	32,157	.....	6,010 00	\$ 601 68	60,379

ASSESSMENT OF 1890.

Number of farms in county.....	200	Assessed valuation.....	\$ 92,715
Number of town or city lots.....	848	Assessed valuation.....	†10,991
Number of horses	962	Assessed valuation.....	28,085
Number of mules and asses.....	28	Assessed valuation.....	22,015
Number of cattle	1,807	Assessed valuation.....	82,245
Number of sheep	52	Assessed valuation.....	152
Number of swine.....	91	Assessed valuation.....	371
Number of carriages	197	Assessed valuation.....	3,287

Total assessed valuation of personal property.....	\$ 102,706
Total assessed valuation of merchandise.....	8,575
Total assessed valuation of moneys and credits.....	5,957
Total assessed valuation of furniture.....	400
County organized April 18, 1889.	

† State Board of Equalization.

RAMSEY COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Ramsey County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or County Purposes.	Tax Collected for State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Decided Land.	Bonded Indebted- ness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	12.8	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	\$ 1,020,913	14.4	\$4 50	.....	.....	.....	.....	.....	.....	.....	\$ 20,000	.....	.....	162,267
1886	1,350,213	11.8	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	1,696,526	10.6	4 50	.....	.....	.....	.....	.....	.....	193,948	38,000	.....	\$ 2,310 00	785,000
1888	1,980,862	11.0	4 50	.....	.....	.....	.....	.....	80,274	215,594	58,000	.....	9,799 00	418,468
1889	1,998,000	11.3	4 20	.....	.....	.....	.....	.....	124,171	240,189	58,000	.....	9,421 00	175,518
1890	2,126,730	17.3	8 70	.....	.....	.....	.....	.....	94,061	255,646	88,000	\$ 5,000	7,259 00	448,222

ASSESSMENT OF 1890.

Number of farms in county	800	Assessed valuation	\$ 1,069,926
Number of town or city lots .....	.....	Assessed valuation	†422,786
Number of horses	3,008	Assessed valuation	152,881
Number of mules and asses	170	Assessed valuation	8,790
Number of cattle	4,962	Assessed valuation	74,716
Number of sheep	260	Assessed valuation	548
Number of swine	797	Assessed valuation	2,618
Number of carriages	1,134	Assessed valuation	21,907

Total assessed valuation of personal property..... \$ 672,504

Total assessed valuation of merchandise..... 63,280

Total assessed valuation of moneys and credits 33,437

Total assessed valuation of furniture 26,970

County organized January 25, 1883.

Area of county, 630,000 acres.

† State Board of Equalization.

RANSOM COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Ransom County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	\$ 1,058,563	16.5	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	1,520,448	16.9	...	\$21,045 88	.....	\$ 4,409 80	\$ 9,120 62	.....	.....	.....	.....	.....	.....
1886	1,531,769	16.2	...	21,169 26	.....	8,871 04	9,190 78	.....	.....	.....	.....	.....	.....
1887	2,841,687	18.0	...	25,524 04	.....	7,029 60	14,008 09	.....	.....	.....	.....	.....	.....
1888	2,837,248	15.5	...	26,694 07	.....	7,083 82	14,023 28	104,304	.....	.....	.....	.....	942,092
1889	2,850,145	11.5	...	25,724 82	.....	6,813 59	9,397 26	114,025	.....	.....	.....	\$18,064 21	447 496
1890	2,764,612	16.0	\$3 88	20,697 53	.....	18,071 22	16,588 94	88,046	.....	\$ 8,500	\$33,864 75	7,907 46	888,744

ASSESSMENT OF 1890.

Number of farms in county .....	.....	Assessed valuation .....	.....
Number of town or city lots .....	.....	Assessed valuation	\$ 1230,013
Number of horses.....	3,053	Assessed valuation	111,145
Number of mules and asses	185	Assessed valuation	7,180
Number of cattle.	2,996	Assessed valuation	25,184
Number of sheep	1,449	Assessed valuation	3,004
Number of swine	1,216	Assessed valuation	2,856
Number of carriages.....	1,350	Assessed valuation	22,296

Total assessed valuation of personal property.....	\$ 540,647
Total assessed valuation of merchandise.....	56,950
Total assessed valuation of moneys and credits	1,841
Total assessed valuation of Furniture.	24,936

County organized, April 4, 1881.

Area of county, 532,960 acres.

† State Board of Equalization.

ROLETTE COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Rolette County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	.....	.....	.....	880	.....	.....	.....	.....
1885	\$ 95,810 35	13.9	\$2 20	\$ 1,125 42	.....	\$ 232 88	\$ 39 36	.....	1,280	.....	\$ 7,110 08	\$ 1,054 00	6,957
1886	203,384 97	10.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	276,077 30	10.7	3 75	1,942 48	.....	383 33	1,980 89	.....	7,698	\$ 29,000	1,027 98	156 28	132,000
1888	355,217 50	13.4	3 28	3,400 85	.....	84 72	2,501 89	13,829	11,834	20,000	7,902 85	105 21	70,867
1889	476,677 00	12.9	3 38	2,286 25	.....	312 13	2,924 08	23,750	17,433	20,000	18,116 18	1,802 74	* 87,508
1890	552,965 00	15.5	3 00	1,627 98	.....	610 64	2,817 03	26,881	20,139	20,000	20,108 13	3,334 69	276,100

* County auditor's estimate, 105,000 bushels.

ASSESSMENT OF 1890.

Number of farms in county.....	454	Assessed valuation.....	\$ 276,065
Number of town or city lots		Assessed valuation.....	23,889
Number of horses	1,201	Assessed valuation.....	62,828
Number of mules and asses... ..	88	Assessed valuation.....	2,967
Number of cattle.....	3,884	Assessed valuation.....	69,044
Number of sheep.....	360	Assessed valuation.....	650
Number of swine.....	490	Assessed valuation.....	1,395
Number of carriages	664	Assessed valuation.....	13,229

Total assessed valuation of personal property.....	\$ 282,408
Total assessed valuation of merchandise.....	17,565
Total assessed valuation of moneys and credits.....	28,559
Total assessed valuation of furniture	6,550

Number of acres of timber, 161,280.

County organized October 14, 1884.

Area of county, 578,480 acres.

SARGENT COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Sargent County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Decided Land.	Bonded Indebted- ness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	\$ 708,764	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	1,046,184	...	\$8 30	\$14,452 90	.....	\$ 2,720 65	\$10,446 96	.....	.....	\$ 10,000	.....	.....	\$244,024
1886	1,090,504	...	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	1,485,605	...	8 25	22,679 20	.....	3,260 65	15,066 27	.....	.....	10,000	\$ 18,000	.....	\$765,000
1888	1,528,970	...	8 25	25,480 00	.....	4,882 70	15,260 70	81,779	.....	10,000	21,000	\$ 9,400	881,792
1889	1,731,750	...	8 15	28,398 65	.....	5,715 60	17,316 90	*94,066	.....	10,000	25,000	8,000	\$629,248
1890	2,119,746	...	8 54	35,422 80	.....	9,549 76	24,363 55	107,200	†828,933	18,000	26,000	5,600	264,194

* Hagerly, 101,981.

† State Board of Equalization.

‡ McClure.

§ Hagerly, 762,686.

ASSESSMENT OF 1890.

Number of farms in county.....	.....	Assessed valuation	\$ 1,223,498
Number of town or city lots.....	.....	Assessed valuation	100,541
Number of horses.....	8,571	Assessed valuation	162,919
Number of mules and asses.....	202	Assessed valuation	9,115
Number of cattle	6,044	Assessed valuation	81,577
Number of sheep	823	Assessed valuation	1,363
Number of swine	1,363	Assessed valuation	3,924
Number of carriages.....	1,357	Assessed valuation	23,706

Total assessed valuation of personal property.....	\$ 568,982
Total assessed valuation of merchandise.....	85,075
Total assessed valuation of moneys and credits	52,500
Total assessed valuation of furniture	15,300

County organized August 1, 1883.

Area of county 552,960 acres.

STEELE COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Steele County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Val- uation of Farm Lands Per Acre.	Tax Collected for Educational Pur- poses.	Tax Collected for Municipal Pur- poses.	Tax Collected for Territorial or County Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebted- ness of County.	Floating Indebted- ness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	\$ 797,580	17.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	914,984	15.6	\$2.54	\$ 3,531.59	\$ 46.09	\$ 2,377.86	\$ 6,788.96	.....	.....	.....	.....	.....	762,280
1886	1,733,133	11.1	4.65	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1887	2,046,554	12.4	5.35	20,409.55	3,216.28	4,137.81	12,071.73	.....	.....	\$ 20,000	\$23,364.58	\$31,977.28	975,000
1888	1,957,711	13.0	4.66	19,877.86	5,964.43	5,051.27	13,751.86	86,988	.....	20,000	4,235.71	15,068.34	604,053
1889	1,790,064	10.9	4.38	22,984.62	5,699.73	5,984.88	13,906.53	95,135	.....	20,000	5,366.16	19,701.96	653,660
1890	2,261,506	.....	3.59	.....	.....	.....	.....	104,702	337,599	20,000	4,164.26	19,745.41	796,946

ASSESSMENT OF 1890.

Number of farms in county	690	Assessed valuation	\$ 1,145,982
Number of town or city lots	3,681	Assessed valuation	† 76,943
Number of horses	3,157	Assessed valuation	192,064
Number of mules and asses	256	Assessed valuation	17,587
Number of cattle	3,776	Assessed valuation	71,066
Number of sheep	924	Assessed valuation	21,042
Number of swine	1,510	Assessed valuation	3,655
Number of carriages	1,265	Assessed valuation	22,258

Total assessed valuation of personal property	\$ 479,867
Total assessed valuation of merchandise	13,523
Total assessed valuation of moneys and credits	52,009
Total assessed valuation of furniture	14,679

County organized June 13, 1833.

Area of county, 460,800 acres.

Acres of timber, 2,200.

† State Board of Equalization.

TRAILL COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Trail County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial Purposes.	Tax Collected for State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	\$ 888,669	...	\$2 02	\$ 2,071 06	...	\$ 686 97	\$ 9,948 87	...	...	...	...	...	...	333,409
1881	1,307,986	...	...	...	...	...	...	...	...	...	...	...	...	...
1882	2,407,424	25.9	...	...	...	...	...	...	...	...	...	...	...	...
1883	2,162,604	32.3	3 62	27,154 60	\$ 5,194 43	9,643 74	18,619 61	...	...	...	...	...	...	...
1884	2,401,123	30.5	...	...	...	...	...	...	...	...	...	...	...	...
1885	3,346,888	25.6	5 94	33,419 00	14,187 07	8,061 52	22,436 29	\$ 2,520	...	...	2,520	\$ 490 82	\$ 49,716 57	2,726,447
1886	3,011,999	24.6	...	...	...	...	...	...	...	...	...	...	...	...
1887	3,236,753	26.1	4 49	30,451 79	12,122 26	6,462 12	22,054 99	...	...	...	100	2,825 91	29,350 35	2,651,250
1888	3,549,720	28.0	4 64	33,549 55	24,430 06	12,733 88	23,305 39	...	259,797	...	100	1,387 09	23,333 86	2,174,568
1889	3,485,356	24.3	4 58	24,720 24	19,571 77	8,061 66	18,068 72	...	259,004	...	100	918 64	25,796 87	2,318,531
1890	4,559,653	...	6 53	* 11,394 47	* 11,035 70	* 6,528 96	* 20,623 28	...	231,350	494,935	100	1,409 76	27,570 60	2,822,525

* Up to July 1, 1890.

ASSESSMENT OF 1890.

Number of farms in county .....	.....	Assessed valuation	\$ 2,954,567
Number of town or city lots .....	.....	Assessed valuation	251,437
Number of horses	7,905	Assessed valuation	379,829
Number of mules and asses	906	Assessed valuation	55,279
Number of cattle	10,127	Assessed valuation	74,292
Number of sheep	1,028	Assessed valuation	2,999
Number of swine	3,917	Assessed valuation	8,666
Number of carriages	3,552	Assessed valuation	43,494

Total assessed valuation of personal property	\$1,853,649
Total assessed valuation of merchandise	160,07
Total assessed valuation of moneys and credits	217,150
Total assessed valuation of furniture	27,141

County organized, Jan. 12, 1875.

Area of county, 576,000 acres.

WALSH COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Walsh County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deeded Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	...	...	...	...	...	...	...	...	...	...	...	...	...
1881	\$ 486,295	13.5	...	...	...	...	...	...	...	...	...	...	...
1882	1,513,100	20.0	...	...	...	...	...	...	...	...	...	...	...
1883	2,781,195	28.0	...	\$26,985 76	\$19,152 19	\$ 9,235 60	\$22,084 50	...	287,876	...	...	...	...
1884	3,079,246	23.5	...	...	...	...	...	...	...	...	...	...	...
1885	3,488,277	25.0	...	36,672 19	19,631 74	8,372 86	23,023 45	...	441,156	\$ 25,000	...	\$52,263 23	2,497,699
1886	3,477,751	21.0	...	...	...	...	...	...	...	...	...	...	...
1887	3,901,397	22.5	...	45,886 89	21,289 64	10,927 06	9,368 04	228,000	505,120	25,000	...	83,222 96	4,987,992
1888	4,158,410	22.5	...	51,154 88	21,906 88	11,632 55	9,144 99	240,000	534,087	25,000	...	25,152 10	2,284,892
1889	4,315,997	26.0	...	53,657 70	22,967 90	12,517 48	21,172 82	276,000	553,711	25,000	...	28,820 75	2,260,976
1890	5,537,015	...	...	...	...	...	...	240,597	579,719	42,000	...	25,770 25	1,905,939

ASSESSMENT OF 1890.

Number of farms in county.....	.....	Assessed valuation.....	\$ 3,634,953
Number of town or city lots.....	.....	Assessed valuation.....	391,223
Number of horses	10,012	Assessed valuation.....	526,338
Number of mules and asses.....	325	Assessed valuation.....	17,764
Number of cattle	11,651	Assessed valuation.....	149,606
Number of sheep	1,529	Assessed valuation.....	3,079
Number of swine.....	5,615	Assessed valuation.....	15,771
Number of carriages	4,395	Assessed valuation.....	70,080

Total assessed valuation of personal property.....	\$ 1,510,839
Total assessed valuation of merchandise.....	162,941
Total assessed valuation of moneys and credits.....	94,419
Total assessed valuation of furniture.....	39,936

County organized July, 1881.

Area of county, 892,000 acres.

WARD COUNTY.

ASSESSED VALUATION FROM 1880 TO 1890.

Year.	Ward County Assessed Valuation.	Total Tax Levy in Mills.	Average Assessed Valuation Farm Lands Per Acre.	Tax Collected for Educational Purposes.	Tax Collected for Municipal Purposes.	Tax Collected for Territorial or State Purposes.	Tax Collected for County Purposes.	Number of Acres in Crop.	Number of Acres Deced Land.	Bonded Indebtedness of County.	Floating Indebtedness of County.	Cash in Treasury June 30.	Number of Bushels of Wheat Raised in County.
1880	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1885	.....	.....	.....	.....	.....	.....	.....	.....	2,019	.....	.....	.....	.....
1886	\$ 81,581	13.0	\$5 80	.....	.....	.....	\$ 1,487 00	.....	.....	.....	.....	\$ 398 13	.....
1887	96,372	13.0	\$ 52	\$ 192 08	.....	\$ 64 87	9,954 97	.....	8,879	.....	.....	3,454 26	.....
1888	284,192	13.0	2 85	1,402 05	.....	354 28	7,087 11	3,644	21,289	.....	.....	1,951 44	17,828
1889	242,709	7.0	2 21	2,442 29	\$ 1,291 87	805 (1	10,829 55	5,910	30,589	.....	\$ 1,886 57	4,011 88	10,064
1890	283,658	9.8	2 26	.....	.....	.....	.....	6,113	\$24,871	\$ 1,540	4,197 97	941 14	11,928

* State Board of Equalization gives 26,176.

ASSESSMENT OF 1890.

Number of farms in county.....	191	Assessed valuation	\$ 68,129
Number of town or city lots	2,826	Assessed valuation	62,219
Number of horses	600	Assessed valuation	28,828
Number of mules and asses.....	10	Assessed valuation	895
Number of cattle	2,622	Assessed valuation	40,749
Number of sheep	1,689	Assessed valuation	3,278
Number of swine.....	361	Assessed valuation	740
Number of carriages.....	299	Assessed valuation	4,761

Total assessed valuation of personal property.....	\$ 165,816
Total assessed valuation of merchandise.....	18,020
Total assessed valuation of moneys and credits	3,289
Total assessed valuation of furniture	4,878

County organized April, 1885.

ABSTRACT OF REAL ESTATE ASSESSMENT FOR 1890 AND MISCELLANEOUS FARM
STATISTICS.

COUNTIES.	Number of Farms.	Assessed Value Exclusive of Im- provements.	Assessed Value of Improvements.	Assessed Value Including Structures and Improvements.	Total Number of Acres in Farms.	Total Number of Acres in Cultiva- tion.	Average Number of Acres in Farms.	Average Assessed Value Per Acre.	Average Cash Value Per Acre.	Present Cash Value of Farms Includ- ing Improve- ments.	Cash Value of Farm Implements.
Barnes	615	\$ 2,746,033	\$ 103,504	\$ 2,849,537	213,650	127,322	....	\$3 87	....	\$ 1,091,380	\$ 108,502
Benson	...	329,142	21,467	350,609	98,331	47,292	180	3 34	\$4 89	481,702	38,454
Billings	...	25,834	13,376	39,210	...	...	...	60	...	...	...
Bottineau	466	214,238	15,986	230,223	143,161	47,499	307	2 80	3 98	570,128	43,783
Burleigh	900	1,586,940	55,506	1,642,446	85,066	23,956	94	2 41	3 25	276,447	27,900
Cass	1,941	6,384,629	444,981	6,809,610	...	...	...	6 55	...	...	...
Cavalier	1,214	943,292	25,048	968,330	227,971	85,806	188	3 31	4 57	1,041,594	81,376
Dickey	...	1,768,324	68,232	1,836,556	303,713	129,082	...	3 74	4 12	1,233,110	72,440
Eddy	492	454,460	32,676	487,136	...	...	...	3 37	...	...	...
Emmons	495	630,062	6,628	636,690	162,478	27,544	328	2 05	...	416,910	24,376
Foster	...	881,856	32,176	914,032	119,351	82,190	...	3 34	3 53	425,200	9,995
Grand Forks	...	4,739,865	352,065	5,091,930	466,552	835,745	...	6 44	...	3,038,808	104,935
Griggs	...	1,199,133	59,228	1,258,361	119,061	62,200	...	3 89	4 55	571,357	54,232
Kidder	...	1,076,901	41,301	1,118,202	52,994	27,154	...	2 20	5 08	269,100	17,498
LaMoure	...	1,788,013	44,299	1,832,312	153,270	73,204	...	3 61	5 51	861,751	90,879
Logan	82	408,695	682	409,377	18,200	3,712	222	1 25	66	12,005	4,149

McHenry.....	269	88,765	10,181	98,946	62,069	12,061	281	2 21	2 88	175,860	14,590
McIntosh.....	448	191,892	858	192,715	188,280	47,980	409	2 56	3 65	684,425	91,112
McLean.....	....	551,216	12,986	564,202	31,720	7,851	....	2 26	4 (3	127,785	6,144
Mercer.....	....	178,349	1,461	179,810	13,715	3,238	....	1 72	1 81	24,789	2,135
Morton.....	....	820,898	22,822	843,720	†.....	....	....	1 76	....	....	....
Nelson.....	....	853,623	52,099	905,722	213,741	100,214	....	2 38	3 59	758,641	82,199
Oliver.....	86	304,404	2,496	306,891	16,447	2,955	191	1 28	2 55	41,985	3,972
Pembina.....	....	3,499,409	249,895	3,718,304	527,718	283,775	....	6 12	1 77	4,108,271	377,690
Pierce.....	200	74,085	3,207	77,292	62,478	19,807	312	2 80	2 80	174,821	10,745
Ramsey.....	800	946,249	69,685	1,009,934	180,148	98,115	225	3 70	4 21	756,906	57,181
Ransom.....	....	1,645,583	73,904	1,719,527	133,478	88,046	....	3 98	8 17	1,081,162	73,188
Richland.....	....	3,619,495	81,090	3,700,555	†.....	....	....	5 27	....	....	....
Rolette.....	454	202,089	15,728	217,767	106,579	30,360	285	3 00	4 00	426,700	36,896
Sargent.....	....	1,278,300	72,548	1,345,848	220,236	111,722	....	3 69	5 72	1,261,025	105,947
Stark.....	....	413,402	16,300	429,702	†.....	....	....	1 37	....	....	....
Steele.....	690	1,202,647	96,630	1,302,277	182,901	106,977	285	3 59	6 35	1,162,672	120,888
Stutsman.....	....	2,448,968	96,364	2,538,232	81,112	46,371	....	2 71	6 56	582,450	43,055
Towner.....	....	311,011	5,517	316,528	†.....	....	....	3 34	....	....	....
Trail.....	....	3,164,162	215,269	3,382,431	353,767	259,618	....	6 53	8 08	2,843,484	161,411
Walsh.....	....	3,404,011	230,942	3,634,953	390,141	258,446	....	5 87	....	2,905,817	241,880
Ward.....	191	65,982	3,460	69,442	54,991	8,213	288	2 26	2 41	182,322	10,270
Wells.....	....	896,025	12,601	908,626	*75,000	37,429	....	3 25	1 11	88,140	19,625
Total.....	....	\$ 50,976,797	\$ 2,656,298	\$ 53,633,090	5,056,079	2,597,516	....	\$3 88	....	\$ 27,571,071	\$ 2,198,157

* Partly estimated. † Not reported by county auditors. ‡ As returned by State Board of Equalization.

ABSTRACT OF ASSESSMENT—REAL ESTATE, 1890.

COUNTIES.	No. of Acres.	Value of Town or City Lots Exclusive of Structures or Improvements.	Value of Structures or Improvements on Town or City Lots.	Total Value of Real Property Including Structures and Improvements.	Total Value of Real Property Including Structures and Improvements as returned by the County Boards of Equalization.	Value of Real Property Including Structures and Improvements Except by the Laws of this State.
Barnes	710,114	\$ 102,883	\$ 177,221	\$ 8,129,591	\$ 2,845,064	\$
Benson	98,470	27,072	7,085	884,716	402,545	17,929
Billings	43,185	437	2,481	42,128	88,290	.....
Bottineau	76,537	44,774	10,775	285,718	307,501	3,560
Burling	659,682	988,850	854,563	2,930,859	2,476,243	250,696
Cass	971,177	1,395,219	1,096,111	9,300,940	7,392,662	45,240
Cavalier	194,266	34,178	58,301	766,809	594,178	20,877
Dickey	473,300	107,023	137,738	2,061,417	1,892,106	597,305
Eddy	135,017	24,879	23,867	534,882	486,255	.....
Emmons	307,661	3,106	978	640,774	530,450	27,270
Foster	284,124	24,104	30,465	968,801	880,546	.....
Grand Forks	736,086	1,644,398	626,136	7,364,464	6,304,152	684,344
Griggs	308,896	46,625	57,591	1,362,577	1,359,880	57,042
Kidder	480,443	53,884	41,818	1,213,404	964,316	1,002,716
LaMoure	492,309	116,269	76,951	2,025,562	1,973,214	.....
Logan	321,901	3,677	825	408,879	330,981	1,820
McHenry	40,225	8,654	10,285	117,885	107,167	2,797
McIntosh	75,078	2,583	2,018	197,311	179,878	5,175

McLean.....	249,821	19,383	13,189	597,224	709,965	6,000
Mercer	108,794	6,181	475	186,216	142,810	1,722
Morton	465,022	514,696	285,195	1,648,551	1,844,890	65,465
Nelson	831,485	40,216	46,808	992,744	1,290,505	38,556
Oliver.....	288,277	285	204	397,359	200,416	700
Pembina	567,086	61,289	108,083	8,947,656	2,355,789	87,285
Pierce.....	92,157	6,662	4,329	88,283	102,716	2,800
Ramsey	255,646	249,222	173,564	1,452,720	1,454,276	74,423
Ransom	428,880	106,820	123,188	1,949,540	1,696,315	62,675
Richland	686,369	4,271	553,595	4,258,421	3,572,190	.....
Rolette	67,243	26,289	17,908	261,964	270,762	10,150
Sargent	326,983	46,190	64,466	1,456,444	1,324,089	46,642
Stark	371,989	105,543	86,716	624,961	487,087	22,276
Steele	387,599	52,838	24,085	1,379,220	1,862,713	77,051
Stutsman	902,216	365,823	296,018	3,190,073	2,596,317	585,922
Towner	96,160	16,988	12,898	346,414	597,659	4,800
Trail	484,935	101,994	174,537	3,659,012	3,199,397	427,689
Walsh	579,719	153,996	287,227	4,026,176	2,737,222	.....
Ward	26,176	27,822	33,693	130,397	118,542	15,962
Wells	275,694	22,985	20,064	951,625	896,113	.....
Total as equalized by State Board..	13,149,184	\$ 6,522,696	\$ 5,025,369	65,181,177	\$ 55,943,276	\$ 4,256,379

ABSTRACT OF ASSESSMENT, 1890.

COUNTIES.	Number of School Polls—Dollars.	Personal Property.				Number of Persons Assessed Exclusive of Firms.
		Total Value as Returned by Assessors.	Total Value as Equalized by Co. Board of Equalization.	Total Value as Equalized by State Board of Equalization.	Reductions Returned by Co. Boards—Disallowed by State Board.	
Barnes	\$ 1,298	\$ 595,010	\$ 591,598	\$ 645,515	.....	1,557
Benson	692	294,108	287,685	258,853	\$ 42,352	645
Billings	64	273,389	410,614	421,753	.....	60
Bottineau	715	254,345	288,102	271,531	.....	963
Burleigh	852	450,808	521,894	614,856	1,956	858
Cass	2,943	2,579,776	2,582,776	2,970,658	20,876	3,389
Cavalier .....	.....	512,092	522,069	595,850	27,202	1,628
Dickey	1,448	678,305	679,472	751,434	99,950	1,425
Eddy	364	190,039	194,889	175,621	.....	450
Emmons	647	231,159	281,159	285,270	.....	647
Foster	314	130,754	180,754	177,828	.....	354
Grand Forks	2,762	2,862,199	2,924,468	3,152,304	971,700	3,692
Griggs	666	331,698	332,963	387,982	3,552	728
Kidder	309	178,589	182,190	196,089	.....	422
LaMoure	798	231,079	236,993	305,825	.....	872
Logan	124	52,249	52,258	49,819	22,791	153
.....	.....	.....	.....	.....	6,385	.....

McHenry	867	188,712	200,787	225,353	3,650	538
McIntosh	729	270,019	270,168	267,714	.....	746
McLean	199	58,531	60,371	79,154	.....	224
Mercer	108	26,433	25,944	32,751	815	119
Morton	910	504,314	504,314	541,096	.....	1,252
Nelson	1,133	466,244	467,527	486,598	152,684	1,257
Oliver	109	50,786	49,315	53,928	.....	137
Pembina	2,705	1,436,871	1,449,795	1,447,706	591,942	2,756
Pierce	302	107,720	105,720	98,855	.....	308
Ramsey	1,158	676,350	672,504	702,332	196,532	1,187
Ransom	1,033	682,207	540,647	671,251	60,685	1,146
Richland	1,052	963,080	1,014,896	1,141,740	.....	2,225
Rollette	779	277,836	284,410	282,403	33,080	867
Sargent	1,053	568,906	577,990	610,135	178,742	1,268
Stark	488	186,860	184,770	225,599	2,090	532
Steele	828	447,337	479,897	464,267	201,074	903
Stutsman	772	408,919	408,919	499,219	86,353	881
Towner	487	183,208	188,278	180,610	.....	504
Trail	1,624	1,354,651	1,353,649	1,519,022	727,415	1,800
Walsh	8,179	1,340,135	1,367,173	1,510,889	.....	3,337
Ward	448	143,277	165,316	175,184	.....	496
Wells	381	113,641	111,553	125,317	1,099	399
Total	\$ 33,330	\$ 20,383,564	\$ 20,795,788	\$ 22,531,280	\$ 3,595,632	40,680

ABSTRACT OF ASSESSMENT, 1890.—Continued.

COUNTIES.	Number of School Polls—Dollars.	Personal Property.				Number of Persons Assessed Exclusive of Firms.
		Total Value as Returned by Assessors.	Total Value as Qualified by Co. Board of Equalization.	Total Value as Qualified by State Board of Equaliza- tion.	Reductions Re- turned by Co. Boards—Dis- allowed by State Board.	
Buford .....	.....	.....	\$ 25,537	\$ 26,311	.....	43
Flannery .....	.....	.....	10,801	19,136	.....	14
Hettinger	\$ 30	.....	15,881	18,389	.....	31
Mountrail .....	.....	.....	23,258	27,539	.....	23
McKenzie	45	.....	175,828	300,067	.....	.....
Renville .....	.....	.....	22,839	24,905	.....	24
Williams .....	.....	.....	46,361	73,760	.....	55
Totals	75	.....	\$ 820,065	\$ 490,807	.....	196
Totals organized counties	33,830	.....	20,796,788	22,531,290	.....	40,680
Grand total	\$ 35,965	\$ 20,823,564	\$ 21,118,798	\$ 23,021,867	\$ 5,585,632	40,876

Unorganized.

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890.

COUNTIES.	Horses.				Mules and Asses.			
	Under Three Years Old.		Three Years Old and Over.					
	Number.	Value.	Average Value.	Number.	Value.	Average Value.	Number.	Value.
Barnes.....	948	\$ 24,250	\$ 25 58	3,704	\$ 213,916	\$ 57 70	289	\$ 14,707
Benson.....	154	4,688	30 37	1,029	59,658	57 98	97	5,296
Billings.....	1,579	26,103	16 53	2,494	92,433	37 06	6	270
Bottineau.....	282	5,911	25 48	1,012	58,383	57 69	40	2,180
Burlington.....	598	15,157	25 56	1,927	111,247	57 73	163	8,888
Cass.....	3,338	81,910	25 44	11,063	637,004	57 63	1,627	88,860
Cavalier.....	558	14,284	25 60	2,392	139,593	58 35	138	7,552
Dickey.....	948	24,884	25 80	3,514	203,990	58 05	258	14,171
Eddy.....	234	5,956	25 50	864	50,122	58 01	64	3,498
Emmons.....	757	19,040	25 16	1,634	94,096	57 58	67	3,980
Foster.....	172	4,883	25 42	983	53,708	57 63	150	8,213
Grand Forks.....	1,873	47,088	25 62	9,215	526,122	57 42	705	38,334
Griggs.....	328	8,342	25 43	1,422	82,786	58 22	138	8,997
Kidder.....	312	7,943	25 46	954	54,991	57 76	128	6,976
LaMoine.....	466	11,863	25 46	1,464	84,528	57 89	191	10,390
Logan.....	57	1,448	25 42	202	11,694	57 84	6	327

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890—Continued.

COUNTIES.	Horses.				Mules and Asses.				
	Under Three Years Old.			Three Years Old and Over.					
	Number.	Value.	Average Value.	Number.	Value.	Average Value.	Number.	Value.	Average Value.
McHenry.....	335	\$ 8,574	\$ 25 60	760	\$ 43,965	\$ 57 85	43	\$ 2,354	\$ 54 73
McIntosh.....	349	8,887	25 46	1,440	88,342	57 87	19	1,045	55 00
McLean.....	222	5,671	25 55	467	27,000	57 82	47	2,577	54 83
Mercer.....	85	2,161	25 42	138	7,952	57 62	2	110	55 01
Morton.....	1,137	29,083	25 63	1,962	113,015	57 60	94	5,131	54 58
Nelson.....	359	9,204	25 64	1,923	111,762	58 11	225	12,285	54 60
Oliver.....	137	3,502	25 56	219	14,411	57 87	9	494	54 89
Pembina.....	2,178	53,920	25 40	7,251	428,555	58 41	241	13,104	54 37
Pierce.....	66	1,696	25 70	286	17,191	58 11	28	1,528	54 57
Ramsey.....	584	14,909	25 53	2,424	139,327	57 45	170	9,317	54 81
Ransom.....	915	23,233	25 41	3,053	177,882	58 25	185	10,124	54 72
Richland.....	1,601	40,669	25 41	5,403	313,334	57 99	664	36,091	54 35
Rolette.....	267	6,841	25 62	934	54,175	58 00	38	2,077	54 66
Sargent.....	619	15,902	25 53	2,952	170,405	57 73	202	11,023	54 57
Stark.....	375	9,615	25 64	989	54,538	58 08	23	1,238	54 70
Steele.....	696	16,158	25 40	2,521	146,637	58 17	256	14,070	54 96
Sutsman.....	451	11,465	25 42	1,778	102,946	57 96	218	11,921	54 68

Towner.....	141	3,611	25 61	846	48,974	57 89	288	14,706	54 87
Trail.....	1,764	45,590	25 55	6,211	357,825	57 61	906	54,726	54 95
Walsh.....	1,613	41,221	25 55	8,399	485,117	57 76	325	17,764	54 66
Ward.....	128	3,251	25 40	472	27,206	57 64	10	545	54 50
Wells.....	115	2,924	25 43	715	41,572	58 11	108	5,685	54 70
Total value and averages	28,646	\$ 664,002	\$ 24 92	94,940	\$ 5,439,880	\$ 57 29	8,233	\$ 450,414	\$ 54 71
Unorganized.									
Buford	22	\$ 431	19 60	86	2,753	\$ 32 39	.....	.....	.....
Flannery	48	918	19 02	54	2,892	53 57	.....	.....	.....
Hettinger.....	13	214	16 46	47	2,183	46 45	2	\$ 99	\$ 49 50
Mountraille.....	208	4,444	21 37	197	11,300	57 85	10	502	50 20
McKenzie	490	7,500	15 31	1,069	34,237	32 13	.....	.....	.....
Renville	34	769	22 62	67	3,687	55 03	.....	.....	.....
Williams	106	1,769	16 69	211	7,652	36 27	.....	.....	.....
Total value and averages	921	\$ 16,040	\$ 17 42	1,730	\$ 64,705	\$ 37 40	12	\$ 601	\$ 50 08
Total organized counties.....	28,646	664,002	.....	94,940	5,439,880	.....	8,233	450,414	.....
Grand totals	27,567	\$ 680,042	.....	96,670	\$ 5,504,065	.....	8,245	\$ 451,015	.....

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890.

COUNTIES.	Cattle.									
	Under Two Years Old.			Cows Two Years Old and Over.			All Other Cattle Two Years Old and Over.			Average Value.
	Number.	Value.	Average Value.	Number.	Value.	Average Value.	Number.	Value.	Average Value.	
Barnes	2,572	\$ 17,477	\$ 6 78	3,636	\$ 47,986	\$ 12 90	1,074	\$ 22,468	\$ 20 92	
Benson	704	4,749	6 75	1,284	16,521	12 90	1,139	23,958	21 08	
Billings	2,536	25,860	10 00	2,962	59,240	20 00	8,264	206,600	25 00	
Bottineau	971	6,545	6 74	1,801	16,710	12 84	1,300	31,891	20 98	
Burleigh	1,666	11,299	6 78	2,907	37,448	12 88	1,223	25,624	20 96	
Cass	4,733	32,523	6 78	8,251	106,897	13 92	1,377	29,021	21 07	
Cavalier	1,412	9,525	6 74	2,572	32,249	12 90	2,109	44,524	21 11	
Dickey	2,986	20,184	6 76	3,206	41,556	12 96	1,485	31,197	21 00	
Eddy	779	5,212	6 74	1,176	15,108	12 85	716	15,085	21 00	
Emmons	2,294	15,477	6 74	2,241	29,096	12 98	1,498	31,405	20 97	
Foster	571	3,860	6 76	809	10,420	12 90	468	9,883	21 11	
Grand Forks	3,651	24,352	6 75	7,518	96,986	12 90	1,848	36,909	21 05	
Griggs	1,363	9,332	6 84	2,202	28,520	12 95	1,213	2,454	2 99	
Kidder	976	6,598	6 76	1,069	13,773	12 90	394	8,054	20 97	
LaMoore	1,439	6,954	6 70	1,564	20,192	12 91	896	18,846	21 08	
Logan	294	1,992	6 78	395	4,711	12 90	249	5,237	21 11	

McHenry.....	2,309	15,682	6 79	2,790	85,246	12 90	1,412	29,772	21 08
McIntosh.....	1,045	7,086	6 78	1,790	28,081	12 87	1,689	84,666	21 15
McLean.....	642	4,314	6 72	757	9,768	12 90	864	7,660	21 05
Mercer.....	466	3,128	6 71	841	4,408	12 98	232	5,298	21 00
Morton.....	4,688	31,441	6 71	3,856	49,768	12 91	1,269	26,862	21 16
Nelson.....	1,969	13,385	6 78	2,890	37,453	12 96	1,829	38,628	21 12
Oliver.....	373	2,498	6 70	519	7,191	12 86	221	4,681	21 18
Pembina.....	2,885	19,801	6 78	5,231	67,611	12 92	2,109	44,431	21 06
Pierce.....	431	2,911	6 75	726	9,377	12 92	650	13,764	21 17
Ramsey.....	1,169	7,906	6 76	2,324	30,089	12 95	1,469	31,012	21 11
Ransom.....	1,755	11,788	6 72	2,686	38,582	12 90	1,105	23,201	21 00
Richland.....	3,496	23,265	6 71	6,066	78,178	12 89	2,159	45,227	20 96
Rollette.....	986	6,905	6 74	1,291	16,627	12 88	1,157	24,300	21 00
Sargent.....	1,655	11,208	6 77	2,859	36,829	12 88	1,580	32,177	21 08
Stark.....	2,057	13,856	6 74	1,425	18,443	12 94	1,888	28,190	21 07
Steele.....	1,731	11,633	6 72	2,605	33,772	12 96	915	19,208	20 99
Stutsman.....	1,819	12,280	6 75	2,895	37,687	13 00	1,258	26,446	21 02
Towner.....	278	1,885	6 72	596	7,725	12 96	624	13,088	20 98
Trall.....	3,755	25,892	6 71	5,289	68,154	12 89	1,088	22,699	20 96
Walsh.....	3,006	20,198	6 72	6,548	85,229	13 00	2,097	44,189	21 07
Ward.....	768	5,202	6 77	1,262	16,905	12 92	564	12,431	20 98
Wells.....	428	2,850	6 66	889	10,883	12 97	798	16,748	21 11
Total value and averages.....	66,248	\$ 455,361	\$ 6 87	98,912	\$ 1,298,869	\$ 13 13	51,310	\$ 1,112,299	\$ 21 08

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890—Continued.

COUNTIES.	Cattle.									
	Under Two Years Old.				Cows Two Years Old and Over.				All Other Cattle Two Years Old and Over.	
	Number.	Value.	Average Value.		Number.	Value.	Average Value.		Number.	Average Value.
Buford	794	\$ 7,945	\$ 10 03		128	\$ 2,545	\$ 19 88		82	\$ 21 83
Flannery	66	665	10 08		698	10,288	14 77		28	21 00
Hettinger	1 6	610	5 75		115	1,888	15 98		118	26 20
Mountrille	78	720	9 86		192	2,840	14 79		117	21 08
McKenzie	429	3,520	8 21		66	1,123	17 02		9,781	24 66
Renville	280	2,800	10 00		545	9,866	17 19		327	20 84
Williams	267	1,883	7 05		304	4,418	14 58		2,067	25 80
Total value and averages	1,963	\$ 17,643	\$ 8 97		2,043	\$ 32,868	\$ 15 84		12,482	\$ 24 63
Total organized counties	96,248	455,881			88,912	1,298,869			51,310	1,112,299
Grand totals	98,213	\$ 478,004			100,955	\$ 1,331,237			63,792	\$ 1,419,782

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890.

COUNTIES.	Sheep.			Hogs.			Number of Dogs.
	Number.	Value.	Average Value.	Number.	Value.	Average Value.	
Barnes	1,987	\$ 3,963	\$ 2 02	1,795	\$ 5,019	\$ 2 80	669
Benson	150	297	1 98	327	918	2 80	256
Billings	1,617	3,234	2 00	20	56	2 80	16
Bottineau	163	330	2 02	436	1,235	2 83	235
Burleigh	3,721	7,545	2 02	922	2,604	2 82	193
Cass	2,004	4,049	2 02	5,773	16,281	2 82	1,427
Cavalier	782	1,581	2 02	1,464	4,104	2 80	604
Dickey	2,815	5,698	2 03	1,238	3,477	2 81	986
Eddy	67	136	2 03	451	1,265	2 80	123
Emmons	8,623	17,188	2 00	1,137	3,164	2 80	385
Foster	989	1,868	2 02	256	717	2 80	133
Grand Forks	2,354	4,762	2 02	4,496	12,705	2 82	1,526
Griggs	1,328	2,652	2 02	966	2,759	2 80	339
Kidder	7,422	15,017	2 02	296	796	2 80	134
La Moure	2,090	4,218	2 02	488	1,367	2 80	337
Logan	770	1,551	2 01	89	2*1	2 82	71

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890.—Continued.

COUNTIES.	Sheep.			Hogs.			Number of Dogs.
	Number.	Value.	Average Value.	Number.	Value.	Average Value.	
McHenry.....	2,625	\$ 5,818	\$ 2 02	258	\$ 719	\$ 2 80	259
McIntosh.....	488	988	2 02	1,263	3,525	2 80	628
McLean.....	356	719	2 02	328	920	2 80	72
Mercer.....	850	1,700	2 00	207	578	2 80	61
Morton.....	7,786	15,750	2 02	998	2,813	2 82	422
Nelson.....	1,474	2,979	2 02	1,193	3,946	2 80	536
Oliver.....	4,722	9,575	2 03	172	588	2 80	75
Pembina.....	3,226	6,386	2 00	4,402	12,387	2 70	1,331
Pierce.....	52	105	2 01	91	256	2 81	89
Ramsey.....	260	527	2 03	797	2,251	2 81	464
Ransom.....	1,449	2,944	2 03	1,216	3,427	2 82	547
Richland.....	2,533	5,116	2 02	3,769	10,569	2 80	1,049
Rolette.....	360	728	2 02	430	1,214	2 82	340
Sargent.....	823	1,662	2 02	1,363	3,846	2 82	509
Stark.....	5,198	10,453	2 01	432	1,209	2 80	206
Steele.....	924	1,864	2 02	1,510	4,240	2 81	482

Stutsman	8,797	\$	17,962	\$	2 03	520	\$	1,470	\$	2 82	280
Towner	25		50		2 00	288		812		2 81	162
Trail	1,928		3,899		2 02	3,917		11,006		2 81	859
Walsh	1,529		3,079		2 01	5,615		15,771		2 81	1,690
Ward	1,689		3,278		2 00	281		740		2 88	98
Wells	2,355		4,751		2 12	298		885		2 90	73
Total value and averages	86,216	\$	173,876	\$	2 02	49,513	\$	139,140	\$	2 81	17,701
Unorganized.											
Ruford	999	\$	2,004	\$	2 01	17	\$	31	\$	1 82	.....
Flannery	761		1,524		2 00	14		51		3 64	.....
Hettinger	2,877		5,828		2 02	20		54		2 70	7
Mountraille	1,896		2,800		2 01	5		16		3 20	.....
McKenzie	3,807		7,745		2 03	49		169		3 26	52
Renville	53		106		2 00	13		41		3 15	.....
Williams	2,191		4,442		2 03	12		30		2 50	20
Total value and averages	12,084	\$	24,449	\$	2 02	180	\$	383	\$	2 94	79
Total organized counties	86,206		173,876		.....	49,513		139,140		.....	17,701
Grand totals	98,200	\$	198,325		.....	49,643	\$	139,523		.....	17,780

ABSTRACT OF ASSESSMENT PERSONAL PROPERTY, 1890.

COUNTIES.	Wagons and Carriages.			Steamboats, Barges, etc. —Value.	Agricultural Tools, Im- plements and Machin- ery—Value.	Manufacturers' Materials and Manufactured Ar- ticles.	Manufacturers' Tools, Im- plements and Machin- ery, including Engines and Boilers.
	Number.	Value.	Average Value.				
Barnes	1,560	\$ 25,052	\$ 16 06	.....	\$ 66,525	\$ 1,297	\$ 2,888
Benson	578	9,280	16 00	.....	33,816	.....	1,106
Billings	50	804	16 08	.....	814	.....	55
Bottineau	657	10,622	16 16	.....	40,080	440	2,063
Burleigh	887	13,514	16 15	\$ 12,100	23,683	666	1,118
Cass	5,296	86,642	16 36	.....	216,735	69,265	34,359
Cavalier	1,239	20,110	16 22	.....	64,044	1,041	1,777
Dickey	1,489	23,791	16 00	154	52,125	8,704	6,002
Eddy	281	4,689	16 11	.....	21,106	1,117	6,160
Emmons	586	9,400	16 04	38	25,610	359	22
Foster	359	5,808	16 16	.....	17,496	55	715
Grand Forks	4,298	69,000	16 06	4,180	147,072	35,926	29,711
Griggs	775	12,401	16 00	.....	46,485	380	7,524
Kidder	410	6,183	16 09	.....	21,425	.....	979
LaMoure	652	10,531	16 15	.....	19,301	275	686

Logan	128	2,060	16 23	.....	5,756	.....	.....
McHenry	269	4,805	16 07	.....	12,779	.....	.....
McIntosh	665	10,718	16 12	.....	49,757	.....	.....
McLean	100	3,056	16 09	.....	6,893	.....	1,842
Mercer	88	1,433	16 28	.....	2,204	.....	17
Morton	795	12,790	16 09	.....	24,814	50,867	8,889
Nelson	1,284	19,928	16 14	6	64,028	817	1,876
Oliver	117	1,876	16 08	.....	3,205	.....	55
Pembina	8,687	58,455	16 07	165	155,318	100	12,364
Pierce	197	3,188	16 18	.....	12,467	28	1,842
Ramsey	1,134	18,188	16 08	2,20	60,118	1,760	8,008
Ransom	1,350	21,629	16 02	.....	58,219	424	2,981
Richland	2,404	38,750	16 12	.....	-79,981	99	540
Rollette	664	10,588	16 00	.....	84,120	1,289	12,051
Sargent	1,867	21,797	16 06	.....	69,522	2,475	6,688
Stark	882	6,192	16 05	.....	10,172	1,569	4,758
Steele	1,265	20,255	16 01	.....	68,466	.....	286
Stutsman	651	10,457	16 06	.....	19,895	841	4,384
Towner	419	6,768	16 15	.....	27,748	.....	.....
Trail	3,522	56,542	16 03	.....	119,940	6,408	13,219
Walsh	4,395	79,080	15 95	.....	120,969	9,554	18,597
Ward	289	4,701	15 92	.....	8,339	2,255	671
Wells	331	5,297	16 00	.....	20,438	.....	220
Total value and averages	44,600	\$ 717,145	\$ 16 09	\$ 18.898	\$ 1,628,765	\$ 106,481	\$ 188,848

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890—Continued.

COUNTIES.	Wagons and Carriages.			Steamboats, Barges, etc. —Value.	Agricultural Tools, Im- plements and Machin- ery—Value.	Manufacturers' Materials and Manufactured Ar- ticles.	Manufacturers' Tools, Im- plements and Engines and Boilers.
	Number.	Value.	Average Value.				
Unorganized.							
Buford ..	128	\$ 525	\$ 4 27	.....	\$ 285	.....	.....
Flannery ..	14	355	25 36	.....	287	.....	.....
Hettinger ..	20	405	20 25	.....	662	.....	.....
Mountraille ..	19	318	16 74	.....	215	.....	.....
McKenzie ..	47	820	17 45	.....	1,097	.....	.....
Renville ..	22	328	14 91	.....	528	.....	.....
Williams ..	27	344	12 74	.....	538	.....	.....
Total value and averages ..	272	\$ 3,065	\$ 11 38	.....	\$ 3,577	.....	.....
Total organized counties ..	44,800	717,745	.....	.....	1,828,765	.....	.....
Grand totals ..	44,872	\$ 720,840	.....	\$ 13,888	\$ 1,832,342	\$ 198,481	\$ 188,348

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890.

COUNTIES.	Gold and Silver Plate and Plated Ware—Value.	Diamonds and Jew- elry—Value.	Franchises, Annu- ities, Royalties, and Patent Rights —Value.	Moneys of Banks, Brokers, or Stock Jobbers.	Credits of Banks, Brokers, or Stock Jobbers.	Moneys Other Than of Bankers, Etc.	Credits Other Than of Bankers, Etc.	Bonds and Stocks Other Than Bank Stock.	Shares of Bank Stock.	Shares of Capital Stock of Com- panies Not of This State.
Barnes	\$ 213	\$ 13	\$	\$ 1,870	\$ 188	\$ 7,043	\$ 9,592	\$ 660	\$ 31,850	\$
Benson .....	.....	.....	.....	2,040	418	1,062	25,375	4,940	.....	7,981
Billings .....	.....	.....	.....	.....	.....	22	.....	.....	.....	.....
Bottineau	70	55	.....	495	83	3,764	27,669	.....	.....	.....
Burleigh	1,089	3,152	.....	1,878	.....	10,622	4,644	254	27,441	.....
Cass	840	1,751	.....	5,445	110,798	29,882	113,622	8,437	841,881	40,280
Cavalier	46	.....	.....	2,572	.....	592	23,265	.....	10,617	.....
Dickey	469	667	.....	8,812	12,210	14,702	115,145	2,448	15,125	110
Eddy	6	698	.....	.....	1,199	5,374	2,613	440	.....	.....
Emmons	537	83	.....	.....	.....	88	4,680	.....	.....	.....
Foster	17	.....	.....	3,311	.....	891	19,960	.....	.....	.....
Grand Forks	1,762	1,686	1,100	76,005	22,991	77,906	952,155	10,945	216,899	2,310
Griggs	53	24	.....	9,432	.....	778	39,689	825	.....	.....
Kidder	306	669	.....	330	.....	550	550	.....	.....	.....
LaMoure	6	457	.....	8,028	3,410	8,382	9,869	.....	.....	8,906
Logan	116	.....	110	.....	.....	.....	4,435	.....	.....	.....

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890—Continued.

COUNTIES.	Gold and Silver Plate and Plated Ware—Value.	Diamonds and Jew- elry—Value.	Franchises, Annu- ities, Royalties, and Patent Rights —Value.	Moneys of Banks, Bankers, Brokers, or Stock Jobbers.	Credits of Banks, Bankers, Brokers, or Stock Jobbers.	Moneys Other Than of Bankers, Etc.	Credits Other Than of Bankers, Etc.	Bonds and Stocks Other than Bank Stock.	Shares of Bank Stock.	Shares of Capital Panes of Com- panies Not of This State.
McHenry .....	\$ .....	\$ .....	\$ .....	.....	\$ 5,288	\$ 1,051	\$ 15,271	\$	\$ 22,000	\$
McIntosh	28	670	.....	.....	.....	4,565	13,008	.....	.....	.....
McLean	33	198	.....	.....	.....	680	512	65	.....	.....
Mercer	6	.....	.....	.....	165	371	354	.....	.....	.....
Morton	442	681	.....	1,725	6,600	3,707	9,899	.....	46,750	.....
Nelson	892	585	.....	.....	.....	1,885	28,849	.....	33,000	.....
Oliver .....	.....	66	.....	.....	.....	1,370	.....	.....	.....	.....
Pembina	275	550	55	5,568	213	11,041	211,724	.....	64,090	.....
Pierce .....	.....	.....	.....	.....	.....	1,100	5,453	.....	.....	7,942
Ramsey	551	429	.....	4,422	.....	9,759	27,022	9,892	77,994	38,839
Ransom	385	116	.....	24,668	165	2,025	60,783	15,798	38,788	.....
Richland	105	495	53,162	12,975	8,575	36,761	50,838	7,085	28,700	12,150
Rolette	223	851	.....	6,157	.....	2,843	29,112	.....	5,720	.....
Sargent	110	6	.....	.....	7,215	7,820	42,416	550	24,071	55
Stark	77	77	.....	380	11,055	330	539	.....	.....	.....
Steele	188	689	.....	.....	.....	8,429	53,781	.....	.....	792
Stutsman	1,161	242	.....	110	468	1,722	41,647	33,980	12,760	.....

Towner .....	.....	883	.....	5,500	204	12,852	715	.....	.....	.....	.....	.....
Trail	628	308	.....	6,828	4,668	30,524	106,847	.....	.....	185,382	.....	1,980
Walsh	78	294	.....	1,980	990	21,842	69,607	.....	633	108,785	.....	.....
Ward	14	149	.....	77	.....	998	2,587	.....	.....	44,000	.....	.....
Wells .....	.....	.....	.....	.....	.....	220	2,442	.....	.....	.....	.....	.....
Total	\$ 10,222	\$ 15,927	\$ 54,427	\$ 186,584	\$ 191,811	\$ 317,781	\$2,215,469	\$ 96,810	\$ 1,285,751	\$ 118,675	.....	.....
Unorganized.												
{ Buford	\$ 15	\$ 255	.....	\$ .....	.....	.....	.....	.....	.....	.....	.....	.....
Flannery .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hettinger	30	.....	.....	300	.....	.....	.....	.....	.....	.....	.....	.....
{ Mountraille .....	.....	50	.....	50	.....	.....	.....	.....	.....	.....	.....	.....
McKenzie .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Renville .....	.....	.....	.....	900	.....	.....	.....	.....	.....	.....	.....	.....
{ Williams .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	\$ 45	\$ 305	.....	\$ 1,260	.....	.....	.....	.....	.....	.....	.....	.....
Total organized counties	10,222	15,927	.....	186,584	.....	.....	.....	.....	.....	.....	.....	.....
Grand totals	\$ 10,267	\$ 16,232	\$ 54,427	\$ 190,784	\$ 191,811	\$ 317,781	\$2,215,469	\$ 96,810	\$1,285,751	\$ 118,675	.....	.....

ABSTRACT OF ASSESSMENT PERSONAL PROPERTY, 1890.

COUNTIES.	Melodeons and Organs.			Piano Fortes.			Household Furniture, Value.
	Number.	Value.	Average Value.	Number.	Value.	Average Value.	
Barnes	46	\$ 1,404	\$ 30 52	32	\$ 3,289	\$ 101 21	\$ 16,688
Benson	17	220	30 61	4	405	101 25	220
Billings	2	62	31 00	.....	.....	.....	1,601
Bottineau	22	678	30 82	3	905	101 66	6,650
Burleigh	51	1,565	30 68	77	7,776	100 99	53,810
Cass	335	10,285	30 70	244	24,657	101 05	180,647
Cavalier	36	1,111	30 86	6	612	102 00	1,553
Dickey	117	3,611	30 86	42	4,271	101 70	21,800
Eddy	13	898	30 62	7	713	101 86	4,114
Emmons	19	584	30 74	6	608	101 33	7,197
Foster	11	339	30 83	5	506	101 20	2,449
Grand Forks	259	7,974	30 79	168	16,984	100 81	121,316
Griggs	32	980	30 63	6	608	101 33	10,578
Kidder	25	767	30 68	11	1,109	101 81	12,254
LaMoure	47	1,442	30 68	20	2,020	101 00	8,764

Logan	2	61	30 50	2	208	101 50	2,607
McHenry	11	338	30 73	8	304	101 33	4,108
McIntosh	7	214	30 57	2	202	101 00	4,480
McLean	5	153	30 60	1	101	101 00	985
Mercer	2	61	30 50	..	.....	.....	897
Morton	41	1,260	30 73	35	3,568	101 94	26,942
Nelson	34	1,089	30 56	14	1,421	1'1 50	19,561
Oliver	4	122	30 50	.....	.....	.....	1,537
Pembina	294	8,119	30 75	65	6,568	101 50	25,384
Pierce	6	185	30 83	.....	.....	.....	1,496
Ramsey	56	1,724	30 79	19	1,987	101 95	29,667
Ransom	63	1,944	30 86	38	3,953	101 40	27,480
Richland	149	4,583	30 76	.....	.....	.....	8,151
Rolette	28	857	30 61	6	608	101 33	7,205
Sargent	81	2,478	30 59	16	1,628	101 75	15,662
Stark	21	641	30 52	12	1,222	101 83	13,880
Steele	86	1,104	30 67	6	610	101 66	16,147
Stutsman	42	1,285	30 83	20	2,940	101 40	27,761
Towner	9	276	30 67	4	408	101 50	1,988
Trail	154	4,718	30 63	53	5,379	101 50	26,855
Walsh	178	5,412	30 40	59	5,979	101 34	39,986
Ward	23	704	30 60	3	305	101 66	5,366
Wells	7	213	30 43	1	101	101 00	787
Total value and averages	2,255	\$ 66,221	\$ 30 70	999	\$ 101,118	\$ 101 22	\$ 745,895

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890—Continued.

COUNTIES.	Melodeons and Organs.			Piano Fortes.			Household Furniture, Value.
	Number.	Value.	Average Value.	Number.	Value.	Average Value.	
Unorganized.							
Buford	1	\$ 40	\$ 40 00	1	\$ 25	\$ 25 00	\$ 1,065
Flannery							194
Hettinger	2	130	65 00	1	150	150 00	
Mountraille	1	50	50 00				209
McKenzie							1,785
Renville	7	70	10 00				
Williams	3	15	5 00				10
Total value and averages	14	\$ 305	\$ 21 79	2	\$ 175	\$ 87 50	\$ 8,243
Totals organized counties	2,265	69,221		999	101,118		745,895
Grand total	2,269	\$ 69,526		1,001	\$ 101,293		\$ 749,133

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890.

COUNTIES.	Goods and Merchandise.	Stock and Furniture of Salable Rooms, Eating Houses, etc., including Billiard Tables—Value.	All Articles not Included in Other Items—Value.	Elevators, Warehouses and Grain Therein, and Improvements on Railroad Lands. Value.	Improvements on U. S. Lands—Value.
Barnes	\$ 66,765	\$ 1,694	\$ 11,949	\$ 82,406	\$ 13,598
Benson	22,158	.....	8,582	5,500	19,620
Billings	550	39	275	.....	3,735
Bottineau	24,867	110	6,598	8,855	15,512
Burleigh	98,701	1,980	62,391	55,802	20,013
Cass	372,068	5,728	141,017	174,931	22,296
Cavalier	43,496	55	3,517	37,983	30,067
Dickey	69,784	248	16,576	31,321	28,712
Eddy	10,479	83	660	8,019	11,398
Emmons	2,743	.....	5,214	435	14,664
Foster	13,310	.....	9,900	3,047	6,397
Grand Forks	334,010	3,025	89,790	108,961	27,933
Griggs	13,983	99	9,053	4,193	22,375
Kidder	10,181	.....	5,442	9,213	11,573
LaMoure	36,167	261	4,886	21,808	8,340
Logan	1,100	.....	28	.....	6,102
McHenry	10,137	77	704	.....	6,856
McIntosh	3,542	.....	4,382	.....	13,578
McLean	4,011	.....	.....	.....	3,071
Mercer	638	.....	364	.....	906
Morton	45,238	1,320	4,488	721	22,167
Nelson	25,050	287	6,664	27,713	25,000
Oliver .....	.....	.....	55	94	2,640
Pembina	131,223	198	26,322	80,509	9,426
Pierce	3,933	440	3,234	3,927	7,292
Ramsey	69,608	1,370	37,972	48,897	18,142
Ransom	62,645	660	16,421	26,615	15,212
Richland	143,221	1,309	10,619	72,529	18,413
Rolette	19,322	248	6,896	13,310	18,736
Sargent	33,586	39	15,248	37,444	33,373

ABSTRACT OF ASSESSMENT OF PERSONAL PROPERTY, 1890—*Continued.*

COUNTIES.	Goods and Merchandise.	Stock and Furniture of Sample Rooms, Eating Houses, etc., including Billiard Tables—Value.	All Articles not included in Other Items—Value.	Elevators, Warehouses and Grain Therein, and Improvements on Railroad Lands. Value.	Improvements on U. S. Lands—Value.
Stark	\$ 17,872	\$ 1,925	\$ 850	\$	\$ 12,608
Steele.....	14,875	908	15,970	7,458	14,339
Stutsman	68,596	1,188	11,880	29,987	7,483
Towner.....	8,235	.....	957	12,815	11,187
Traill	176,081	391	27,950	99,220	12,922
Walsh	162,941	1,880	17,412	124,099	17,268
Ward.....	19,822	209	5,458	88	10,500
Wells.....	8,410	.....	2,888	418	3,240
Totals	\$ 2,188,783	\$ 25,604	\$ 591,512	\$ 1,067,608	\$ 546,694
Unorganized.					
Buford.....	\$ 2,045	\$ 210	\$ 87	\$ 200	\$ 4,069
Flannery .....	.....	.....	.....	.....	1,170
Hettinger	275	.....	.....	.....	3,270
Mountraille.....	100	.....	.....	.....	1,525
McKenzie .....	.....	.....	.....	.....	2,008
Renville .....	.....	.....	.....	.....	.....
Williams .....	.....	.....	.....	.....	.....
Totals	\$ 2,420	\$ 210	\$ 87	\$ 200	\$ 12,208
Total organized counties	2,188,783	25,604	591,512	1,067,608	546,694
Grand total.....	\$ 2,191,153	\$ 25,814	\$ 591,599	\$ 1,067,808	\$ 558,717

POPULATION.

Owing to the various difficulties under which this office has labored for the first year, and the fact that the federal census was being taken at the same time, it was not deemed advisable to attempt a census of the population of the State by the assessors.

Through the courtesy of Hon. Robert P. Porter, superintendent of the eleventh census, this office is able to give the population of the State by counties, as shown by the first count, which may be considered reasonably accurate, and which is placed side by side with the figures of the census of 1880 and those of the territorial census of 1885. It will be noticed that the greater growth was during the first five years of the decade, and that, as shown by the figures, several counties suffered a loss of population between the years 1885 and 1890. In some cases changes in county boundaries have affected the number of inhabitants. In several counties the slow growth, or in some cases losses of population has been occasioned by the poor crops of those sections of the State for the past three years—many settlers having moved to other states or portions of this State where the crops have been better.

POPULATION OF NORTH DAKOTA.

Counties.	1880.	1885.	1890.
Allred .....	.....	.....	.....
Barnes	1,585	6,098	7,045
Benson .....	.....	1,255	2,460
Billings .....	.....	787	170
Bowman .....	.....	162	511
Bottineau .....	.....	818	2,898
Buford .....	.....	524	808
Burleigh	3,246	5,854	4,252
Cass	8,908	21,085	19,618
Cavalier .....	.....	5,029	6,471
Church .....	.....	.....	.....

Dickey .....	.....	3,897	5,578
Dunn.....	.....	32	159
Eddy.....	.....	825	1,377
Emmons.....	38	1,046	1,971
Flannery .....	.....	64	72
Foster.....	37	992	1,210
Garfield.....	.....	.....	33
Grand Forks	6,248	20,454	18,357
Griggs .....	.....	2,093	2,817
Hettinger.....	.....	.....	81
Kidder	89	1,572	1,211
LaMoure	20	2,072	3,187
Logan.....	.....	336	597
McHenry.....	.....	800	1,658
McIntosh.....	.....	390	3,248
McKenzie .....	.....	.....	3
McLean .....	.....	942	860
Mercer .....	.....	254	423
Morton.....	200	5,873	4,723
Mountraille.....	13	37	122
Nelson .....	.....	3,081	4,293
Oliver .....	.....	327	464
Pembina.....	4,862	11,510	14,334
Pierce .....	.....	.....	905
Ramsey	281	3,271	4,418
Ransom	537	4,282	5,393
Renville .....	.....	31	99
Richland	3,597	9,043	10,751
Rolette .....	.....	2,232	2,427
Sargent .....	.....	3,234	5,076
Sheridan.....	.....	40	.....
Stark .....	.....	1,507	2,304
Steele .....	.....	3,080	3,777
Stevens.....	.....	.....	16
Stutsman	1,007	5,832	5,266
Towner.....	.....	366	1,450
Traill.....	4,123	8,119	10,217
Wallace .....	.....	46	24
Walsh.....	.....	12,775	16,587
Ward .....	.....	257	1,681

Wells .....	.....	285	1,212
Williams	15	36	109
Total.....	34,896	151,840	182,713

The population of the three following cities are given by Superintendent Porter, that of the other cities, towns and villages not yet being available:

Cities.	1880.	1890.	Increase.	Per Cent.
Bismarck.....	1,758	2,260	502	28.56
Fargo	2,693	5,613	2,920	108.43
Grand Forks	1,705	4,692	3,258	191.09

SCHOOL STATISTICS.

The following tables exhibit the statistics regarding the public schools and school finances, so far as this office has been able to collect them. Only nineteen of the thirty-eight county superintendents furnished the reports asked for, and several of those that were furnished are defective. Through the kindness of State Superintendent Clapp advance sheets of his biennial report have been placed at the disposal of this office, which contains information more or less complete from all the counties. But in his report the independent districts are separated from the others, and the items in some cases based on different data from that obtained by this office, and it has not appeared practicable to make from it a complete report for all the delinquent counties so as to harmonize with the figures presented in these tables. It is, therefore, deemed best to present them as received from the county superintendents.

Some discrepancies will be found in the fact that certain columns and sums of columns that ought to balance do not, which may be accounted for by the defective reports received from some of the superintendents. Also, some of the items from some of the counties do not tally with the same items reported to the State Superintendent.

Logan	27	100	22	66	\$ 85 49	\$ 50 81	31	840	243	680	\$ 41 07	\$ 33 02	816
McHenry.....	6	15	6	9	78 00	40 00	6	85	36	58	38 53	31 37	85
McIntosh.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
McLean .....	.....	.....	.....	.....	.....	.....	.....	10	2	5	36 00	39 60	10
Mercer .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Morton .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nelson .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oliver .....	.....	.....	.....	.....	.....	.....	.....	6	.....	1	.....	30 00	6
Pembina.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pierce .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ramsey.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ransom .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richland .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Rollette .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sargent.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Stark	1	2	.....	2	.....	50 00	1	19	7	12	32 00	33 00	15
Steele.....	1	2	1	1	60 00	40 00	1	51	28	40	.....	.....	51
Stutsman	2	11	.....	.....	.....	52 50	2	54	10	43	35 00	35 00	54
Towner.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trail.....	4	10	2	9	82 50	49 00	4	78	41	78	45 00	37 50	77
Walsh.....	4	15	5	11	90 00	50 00	5	102	31	89	41 00	33 72	102
Ward.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wells.....	.....	.....	.....	.....	.....	.....	.....	11	3	7	42 50	38 00	11
Totals	27	100	22	66	\$ 85 49	\$ 50 81	31	840	243	680	\$ 41 07	\$ 33 02	816

SCHOOL STATISTICS—Continued.
SUMMARY OF ALL SCHOOLS, GRADED AND UNGRADED.

COUNTIES.	Total Number of Teachers Employed.	Average Number Days School Was Taught.	Number of Unmarried Persons Between 7 and 20 Years of Age Residing in County.			Total Number Different Pupils Enrolled.	Average Daily Attendance.	Average Cost Schooling Each Pupil, per Month.	Number School Houses Erected During Year.	Total Number School Houses in County.	Value of Houses, Sites and Furniture.	Whole Number of Sitings.	Total Amount School Indebtedness June 30, 1900.	Average Rate School District Tax in Mills.	Highest Rate School District Tax in Mills.	Lowest Rate School District Tax in Mills.
			Males.	Females.	Total.											
Barnes.....	78	...	829	983	1,792	1,448	...	\$...	1	91	\$ 109,840	2,098	\$	15.00	...	...
Benson	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
Billings.....	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
Botineau	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
Burleigh....	45	122	490	467	957	787	...	...	..	33	62,293	1,124	25,839 60	8.26	15.0	4.0
Cass	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
Cavalier	57	102	879	737	1,616	1,237	668	8 87	4	44	17,156	1,893	18,512 71	20.20	30.0	10.0
Dickey.....	96	115	640	621	1,261	1,228	898	4 50	5	61	52,220	1,931	48,119 43	10.84	20.0	2.0
Eddy	...	90	116	113	229	190	169	12 21	1	9	5,068	...	4,661 00	3.50	4.0	3.0
Emmons.....	28	...	323	245	568	349	216	...	8	28	16,642	773	20,948 92	11.00	20.0	4.0
Foster	22	92	178	122	300	244	...	5 10	1	22	12,431	510	10,864 19	5.86	15.0	3.0
Grand Forks.....	114	108	2,279	2,196	4,475	3,450	1,332	5 21	..	109	98,559	4,364	75,000 00	13.00	30.0	2.0
Griggs.....	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...
Kidder.....	17	101	153	138	291	260	158	9 21	2	13	17,948	545	15,834 31	7.50	12.5	1.0
LaMoure	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...

Logan	2	115	17	19	36	22	18	15	2	2,579	200	2,500 00	15.00	...	...
McHenry	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
McIntosh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
McLean	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mercer	7	60	72	52	124	71	...	8 41	10	5,950	244	13,870 10	11.25	15.0	10.0
Morton	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nelson	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Oliver	1	75	36	37	73	7	7	91 27	6	800	60	1,500 00	7.50	7.5	7.5
Pembina	109	...	2,218	1,902	4,120	3,389	1,801	3 87	91	88,075	4,245	74,224 26	14.00	25.0	7.0
Pierce	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ramsey	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ransom	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Richland	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rollette	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sargent	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sark	21	90	222	220	442	523	...	11 30	16	8,000	389	5,898 67	...	...	...
Steele	65	114	478	432	910	897	689	4 67	52	35,150	1,274	23,842 78	8.60	15.0	4.0
Suttsman	53	106	690	680	1,370	1,022	...	...	56	...	...	73,348 00	9.86	15.0	5.0
Towner	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Trail	130	128	1,159	1,074	2,263	1,988	1,075	4 14	81	65,000	3,200	22,890 00	7.16	12.0	2.0
Walsh	136	111	1,993	1,771	3,764	3,271	1,980	3 68	107	100,000	5,500	70,000 00	10.00	30.0	5.0
Ward	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wells	10	104	125	85	210	153	99	8 80	11	7,256	282	6,537 01	5.40	8.0	2.0
Totals	991	102	12,927	11,874	24,801	20,206	700	\$12 74	847	\$ 694,987	28,190	\$ 515,870 98	10.22	...	...

SCHOOL FINANCES, 1890—Continued.

[illegible]

MECHANICAL AND MANUFACTURING INDUSTRIES.

In compliance with Section 1 of the act defining the duties of this office, an earnest effort has been made to procure accurate statistics pertaining to the mechanical and manufacturing industries. Early in the summer requests were sent to the county auditors for the names and addresses of all parties engaged in these industries in their respective counties. In cases where the auditors either wholly failed to respond, or furnished only partial returns, the same inquiries were sent to newspaper publishers and others in a position to give the necessary information. Due diligence has been exercised to secure statistics from all parties whose addresses could be learned, but not more than one in three of the parties addressed have made any response. The greatest number of replies, in proportion to the inquiries sent, has been received from printers and publishers; and yet, even here at least, three of the largest printing establishments in the State have made no returns whatever.

Again, in many cases where replies were received, answers to only a portion of the inquiries were given. For instance, the manager of a saw mill, employing seventy-five men, gives the amount paid in wages, but makes no return of the value of raw material used or manufactured product.

Obviously any summary of statistics based upon data so incomplete and defective is practically valueless, and any attempt to exhibit the status of our manufacturing and industrial interests is wholly futile, except as proprietors and managers can be induced to co-operate with this office in furnishing the needed information.

MECHANICAL AND MANUFACTURING INDUSTRIES.

NAME OF INDUSTRY.	No. of Establishments Reported	Amount of Capital Invested.	Motive Power— Steam, Water, Electric or Hand.	Av. No. Months in Operation Year ending June 30, 1890.	Av. No. of Em- ployes.		Average Weekly Wages.			Total Amount Paid in Wages During Year ending June 30, 1890.	Value for Year end- ing June 30, 1890.	
					Men.	Women.	Men.	Women.	Youth.		Raw Mate- rial Used.	Finished Product.
Boot and shoe factories	1	\$ 250	Hand.	12	1	..	\$12 00	\$	\$	\$ 624	\$ 500	\$ 1,800
Bottling works	1	1,100	.....	12	2	..	12 50	.....	.....	.....	300	1,000
Breweries	2	188,000	Steam.	12	23	..	13 00	.....	..	15,548	83,000	160,000
Brick yards	5	16,000	S. 2, Horse 2	4	67	..	11 10	.....	7 00	11,880	4,200	27,700
Cheese factories	2	1,301	S. 1, H. 1.	4½	2	1	16 00	.....	.....	187	900	1,400
Cigar factories	1	4,000	.....	12	4	..	15 00	.....	5 00	2,940	1,500	8,000
Creameries	5	20,500	Steam.	5	40	..	10 25	.....	.....	9,855	44,600	59,278
Flouring mills	11	315,800	S. 11, Water 1	7	77	..	14 70	.....	13 00	31,048	309,775	438,950
Gas and electric light companies	2	70,000	Steam.	12	10	..	25 00	.....	.....	7,000	6,500	28,000
Harness and saddlery works	13	39,450	Hand.	11½	33	..	11 50	.....	7 00	6,826	15,051	34,182
Machine shops and foundries	4	203,700	S. 2, H. 1.	12	85	..	15 00	.....	7 50	87,866	61,310	18,628
Planing mills	8	42,000	Steam.	9	18	..	.....	.....	.....	3,600	11,000	18,000
Potteries	1	1,800	Hand.	10	2	..	.....	.....	.....	.....	.....	.....
Printing establishments, book binding, etc	42	216,950	S. 14, Hand 28	12	178	23	14 00	7 50	4 66	146,228	64,206	228,650
Saw mills	3	67,000	Steam.	4	94	..	10 00	.....	.....	3,640	852	3,240
Tailoring establishments	7	10,050	Hand.	11	22	2	14 66	8 00	.....	11,822	14,672	36,406
Wagon works	8	9,400	Hand.	12	84	..	.....	.....	.....	3,300	5,100	14,500
Total	111	\$ 1,207,200	.....	.....	742	26	.....	.....	.....	\$312,257	\$628,465	\$1,879,682

EDUCATIONAL, RELIGIOUS AND CHARITABLE INSTITUTIONS.

The following table exhibits the information received from the institutions named. There are others in the State, but they failed to supply the information asked, and are necessarily omitted from the table. The North Dakota Hospital, being opened to the public after the close of the year for which this report is made, presents no information, but its name is given with the others.

EDUCATIONAL, RELIGIOUS AND CHARITABLE INSTITUTIONS.

(Not State Institutions or Supported by Public Funds.)

FOR YEAR ENDING JUNE 30, 1900.

NAME.	Location.		Character.	Value of Buildings and Grounds Owned.	Value of Library, Apparatus and Appliances.	Under what Control.
	Post Office.	County.				
Fargo College.....	Fargo	Cass	Educational	\$ 80,000	\$ 1,000	Congregational.
Jamestown College.....	Jamestown.....	Stutsman	Educational	25,000	500	Presbyterian.
Rolla University	Rolla	Rolette	Educational .....	.....	300	Non-Sectarian.
St. Mary's Select School	Bismarck	Burleigh	Educational .....	.....	.....	Catholic.
Ursuline Academy	Grand Forks.....	Grand Forks.....	Educational and religious.....	25,000	200	Catholic.
Totals .....	.....	.....	.....	\$ 130,000	\$ 2,000	.....
*Indian School	St. John.....	Rolette	Educational	\$ 80,000	\$ 2,000	Catholic.
*St. Mary's Industrial Boarding School.....	Belcourt.....	Rolette	Educational	80,000	2,000	Catholic.
*St. John's Industrial Day School.....	St. John.....	Rolette	Educational	2,000	800	Catholic.
Totals .....	.....	.....	.....	\$ 62,000	\$ 4,800	.....
Lamborn Hospital.....	Bismarck	Burleigh	Charitable	\$ 24,000	\$ 4,500	Catholic.
North Dakota Hospital.....	Grand Forks.....	Grand Forks.....	Charitable .....	.....	.....	North Dakota Hospital Association.
Total all Institutions.....	.....	.....	.....	\$ 216,000	\$ 11,800	.....

* Indian Government Schools, by Contracts.

EDUCATIONAL, RELIGIOUS AND CHARITABLE INSTITUTIONS.—Continued.

NAME AND ADDRESS OF PRESIDENT OR SECRETARY.	Year Opened to Public.	Total Number of Students or Inmates for Year ending June 30, 1889.	Total Number of Students or Inmates for Year ending June 30, 1890.	Number of Teachers Employed for Year ending June 30, 1889. (In Hospitals, Number Nurses, etc.)	Number of Teachers Employed for Year ending June 30, 1890. (In Hospitals, Number Nurses, etc.)	Average Cost to Student or Inmate for Board for Year ending June, 1890.	Average Cost to Student or Inmate for Board for Year ending June 30, 1890.	Total amt. paid Teachers and Instructors for year ending June 30, 1890. (In hospitals, amount paid nurses.)	Total Amount Paid Officers or Employers other than Teachers or Nurses for Year ending June 30, 1890.
Rev. Geo. B. Barnes, Fargo.....	1887	48	112	2	5	\$ 125	\$ 50	\$ 4,000	\$ 500
Rev. G. S. Baskerville.....	1888	56	35	4	4	.....	.....	1,300	.....
President Wm. H. Becker.....	1889	.....	45	.....	8	.....	15	.....	50
Sister Superior.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mother Stanislaus Rafter.....	1883	267	200	11	10	150	150	.....	.....
Totals.....	.....	871	882	17	22	\$ 275	\$ 215	\$ 5,800	\$ 550
Rev. J. F. Malo.....	1889	250	250	8	8	\$ 108	\$ 50	\$ 5,000	\$ 1,500
Rev. J. F. Malo.....	1889	250	250	8	8	108	50	5,000	1,500
Rev. J. F. Malo.....	1889	100	100	2	2	90	10	1,200	300
Totals.....	.....	600	600	18	18	\$ 108	\$ 86.66	\$ 6,200	\$ 3,300
Sister Superior.....	1888	29	32	9	9	\$ 144	.....	.....	.....
Mrs. M. J. Winship.....	July, 1890	.....	.....	.....	.....	.....	.....	.....	.....

† Average of Boarding Schools.

CHURCH STATISTICS.

Believing that information relating to churches and Sunday schools is as valuable as that pertaining to the material condition of the State, an effort was made to procure statistics regarding all the religious denominations represented in the State. Blanks were sent early in the summer to the heads of the different denominations, and the desired information has been received from the Baptist, Congregational, Presbyterian, and the Scandinavian branches of the Baptist, Lutheran and Methodist Episcopal denominations, which are included in the following tables. A second application was made to the Bishops of the Roman Catholic and Episcopal churches, without avail. The figures for the Methodist Episcopal church were promised immediately after the meeting of Conference, but they failed to arrive, and those for the year 1889 are given. There are many Union Sunday Schools in the State, but very meager information could be obtained from them. It is regretted that the complete figures cannot be given for all the denominations in the State, but that they are not is the fault of the denominations themselves. The figures for the Methodist Episcopal church being one year old, were not thought to be of sufficient interest to arrange by counties, as has been done with the other denominations.

STATISTICS—CHURCHES AND CHURCH PROPERTY—STATE OF NORTH DAKOTA.

Location— Counties.	Denomina- tion.	Grounds, Buildings and Furniture.			Indebtedness on	Number of Sittings.	Number of Communicants.	Average Number Attending Service.	*No. Months Service has been Regularly Maintained for Year Ending June 30, 1890.	Amount Paid Pastor, Includ- ing Amount Received from Missionary Board.	Amount Received from Mis- sionary Board for Pastor's Salary.	Amount Pastor's Salary Yet Unpaid.	Amount Raised for Mission- ary Purposes.	No. Additions to Church During Year Ending June 30, 1890.		
		Value of												By Profession.	By Letter.	Total.
		Church.	Parsonage.													
Bottineau	Baptist	\$ 1,800	\$	\$	200	58	..	12	\$ 325 00	\$ 200	\$ 182	\$ 4 00	2	4	6	
Burleigh	"	2,500	...	635	200	15	..	12	1,000 00	600	.....	72 79	...	4	4	
Cass	"	7,500	300	995	750	224	..	12	2,600 00	500	125 66	78 55	35	37	72	
Cavalier .....	"	.....	.....	.....	.....	49	..	12	680 00	400	70 00	5 00	10	5	15	
Dickey	"	4,050	1,200	900	250	128	150	12	1,677 00	500	122 50	57 41	19	8	27	
Eddy	"	2,500	.....	500	250	42	..	12	600 00	300	.....	6 00	1	3	4	
Grand Forks	"	8,700	.....	.....	400	108	..	12	1,215 00	300	.....	30 16	1	15	16	
Griggs	"	3,500	.....	1,000	300	26	..	4	300 00	150	.....	10 00	2	1	4	
Kidder .....	"	.....	.....	.....	.....	15	..	2	200 00	100	.....	.....	.....	.....	.....	
LaMoure .....	"	.....	.....	.....	.....	34	..	...	844 00	400	107 68	.....	5	14	19	
Morton	"	2,300	.....	800	200	42	..	...	825 00	425	.....	15 70	6	3	9	
Nelson	"	1,500	.....	.....	200	28	..	...	200 00	100	.....	.....	.....	.....	.....	
Pembina	"	7,000	.....	.....	850	251	..	...	2,046 80	300	198 51	.....	55	51	108	
Ramsey .....	"	.....	.....	.....	.....	14	..	12	500 00	400	.....	.....	.....	2	2	

Ransom.....	Baptist	8,000	900	500	300	53	....	12	1,000 00	400	.....	11 00	1	3	4
Richland	"	8,200	800	185	850	108	....	....	1,700 00	450	145 00	14 20	5	4	9
Rollette.....	"	.....	.....	.....	.....	12	....	6	110 00	52	.....	.....	2	....	2
Stark.....	"	1,000	.....	.....	150	9	....	....	800 00	100	.....	1 30	1	....	1
Stutsman.....	"	8,000	.....	19	250	113	....	12	900 00	500	19 00	59 40	21	21	42
Walsh	"	4,500	.....	.....	450	111	....	12	1,600 00	850	50 00	38 00	16	3	19
Ward	"	2,500	.....	.....	150	15	....	12	450 00	400	.....	.....	....	....	....
	Immanuel	.....	.....	.....	.....	16	....	12	200 00	100	.....	.....	7	2	9
Totals .....	.....	\$ 57,850	\$ 3,200	\$ 5,751	5,250	1,499	....	....	\$ 19,222 80	\$7,577	\$985 00	\$429 00	190	183	\$72

* When there is a regular denominational year closing at a different date from June 30, take the year last completed and give date of ending.

STATISTICS—CHURCHES AND CHURCH PROPERTY—STATE OF NORTH DAKOTA.

LOCATION—COUNTIES.	Denomination.	Grounds, Buildings and Furniture.			Number of Communicants.	Amount Paid Pastor, including Amount Received from Missionary Board.	Amount Raised for Missionary Purposes.	No. Add to church during Yr. Ending Dec. 31, 1889.		
		Value of.		Indebtedness on.				By Profession.	By Letter.	Total.
		Church.	Parsonage.							
Barnes	Congregational.	\$ 700	\$ 1,300	\$ 900	167	\$ 1,900	\$ 111	84	40	74
Benson .....	"	.....	.....	.....	12	.....	61	.....	8	8
Buford .....	"	.....	.....	.....	9	.....	.....	.....	9	9
Burleigh .....	"	.....	.....	.....	18	.....	.....	.....	.....	.....
Cass	"	10,350	1,600	200	248	3,960	684	18	14	32
Eddy	"	3,000	800	752	22	800	4	3	2	5
Foster	"	3,400	500	25	80	1,600	54	9	3	12
Garfield	"	1,100	2,000	.....	12	1,000	62	3	5	8
Grand Forks	"	7,600	2,500	2,100	119	2,400	273	11	12	23
Griggs	"	3,000	1,100	.....	31	1,120	69	1	2	3
Hettinger	"	1,800	.....	500	18	500	18	.....	3	3
Kidder	"	3,380	.....	.....	41	.....	1	.....	1	1
LaMoure .....	"	.....	.....	.....	42	.....	.....	40	2	42
McHenry .....	"	.....	.....	.....	.....	.....	.....	.....	.....	.....
McIntosh .....	"	.....	.....	.....	6	.....	.....	.....	.....	.....

Morton	Congregational.	1,100	.....	1,250	39	.....	12	.....	.....	.....
Nelson .....	"	.....	.....	.....	9	.....	2	.....	.....	.....
Ransom .....	"	.....	.....	.....	.....	.....	.....	.....	.....	.....
Richland	"	7,400	3,900	840	108	2,350	137	25	14	39
Sargent	"	2,000	.....	400	56	900	7	24	5	29
Stark	"	3,600	1,125	.....	31	1,000	5	9	5	14
Steele	"	2,500	750	378	25	600	79	1	3	4
Stutsman .....	"	.....	.....	.....	81	1,100	64	24	26	50
Towner	"	2,000	.....	.....	43	.....	42	1	5	6
Trall	"	9,600	2,000	.....	88	1,800	.....	30	13	43
Wells .....	"	.....	.....	.....	31	580	15	4	15	19
Total .....	.....	\$ 65,400	\$ 17,575	\$ 7,945	1,360	\$ 21,610	\$ 1,700	287	187	424

STATISTICS—CHURCHES AND CHURCH PROPERTY—STATE OF NORTH DAKOTA.

Location— Counties.	Denomination.	Grounds, Buildings and Fur- niture.			Number of Sitzings.	Number of Communicants.	Average Number Attend- ing Service.	Amount Paid Pastor, in- cluding Amount Re- ceived from Missionary Board.	Amount Received from Pastor's Salary.	Amount Raised for Mis- sionary Purposes.	No. Add. to church. During Yr. End- ing June 30, 1890.		
		Value of		Indebtedness on.							By Profession.	By Letter.	Total.
		Church.	Parsonage.										
Barnes	Presbyterian.	\$ 2,000	\$	\$	200	41	100	\$ 1,000	\$ 400	\$ 33	1	3	4
Bottineau	"	2,000	.....	.....	203	47	100	900	300	4	6	6	12
Burleigh	"	11,800	5,000	.....	700	74	130	1,100	350	78	3	9	12
Cass	"	16,800	6,300	2,000	1,325	351	715	5,700	1,550	302	29	20	49
Cavalier	"	5,700	.....	.....	525	89	280	.....	.....	7	8	1	9
Dickey	"	6,000	1,500	.....	475	108	285	2,900	950	50	12	21	33
Emmons	"	2,000	.....	.....	200	25	70	500	100	25	5	2	7
Grand Forks	"	10,900	140	.....	900	384	525	5,400	1,000	362	20	19	39
Kidder	"	1,700	.....	.....	150	15	75	100	50	10	....	2	2
LaMoure	"	3,000	.....	.....	250	89	175	1,400	500	15	2	17	19
McLean .....	"	.....	.....	.....	.....	26	50	200	100	.....	....	....	.....
Morton	"	3,500	.....	.....	250	37	80	950	400	10	....	....	.....
Pembina	"	9,700	3,500	.....	850	596	870	6,400	2,100	342	199	53	252
Pierce .....	"	.....	.....	.....	.....	12	30	200	100	.....	....	....	.....
Ramsey	"	3,100	.....	.....	300	81	130	1,100	300	56	13	8	21

STATISTICS—CHURCHES AND CHURCH PROPERTY—STATE OF NORTH DAKOTA.

Location— Counties.	Denomina- tion.	Grounds, Buildings and Furniture.			Number of Sitzings.	Number of Communicants.	Average Number Attending Service.	No. Months Service has been Regularly Maintained for Year Ending June 30, 1890.	Amount Paid Pastor, Includ- ing Amount Received from Missionary Board.	Amount Received from Mis- sionary Board for Pastor's Salary.	Amount Pastor's Salary Yet Unpaid.	Amount Raised for Mission- ary Purposes.	No. Additions to Church During Year Ending June 30, 1890.		
		Church.	Parsonage.	Indebtedness on.									By Profession.	By Letter.	Total.
Barnes.....	Lutheran..	\$	\$	\$	...	85	95	...	\$ 10 00	\$	\$50 00	\$	...	...	...
Beaumont.....	"	7,000	1,500	1,700	750	35	40	12	20 00	...	...	...	...	...	...
Cass.....	"	...	...	...	...	360	400	5	600 00	...	...	200 00	...	...	...
Cavalier.....	"	...	...	...	...	52	45	12	215 00	125 00	...	5 00	...	...	...
Grand Forks..	"	4,500	1,300	1,025	1,000	980	765	12	750 00	...	285 00	250 00	10	10	20
Griggs.....	"	...	...	...	...	182	825	12	865 00	16 75	615 00	115 00	122	112	234
LaMoure.....	"	...	...	...	...	105	120	...	205 00	...	110 00	80 00	...	...	...
Morton.....	"	1,100	...	...	150	180	180	12	280 00	...	50 00	35 00	13	...	13
Nelson.....	"	1,100	...	...	450	454	150	12	720 00	16 75	570 00	52 00	8	4	12
Pierce.....	"	...	...	...	...	20	15	8	8 00	...	...	...	...	...	...
Pembina.....	"	...	...	...	...	35	30	12	25 00	...	...	6 50	...	...	...
Ramsey.....	"	...	...	...	...	261	...	12	600 00	450 00	200 00	...	7	7	14
Ransom.....	"	1,200	...	396	800	75	100	...	200 00	...	100 00	30 00	...	...	...
Rolette.....	"	...	...	...	...	65	45	12	135 00	80	...	...	...	...	...

GENERAL SUMMARY:

DENOMINATION.	Grounds, Buildings and Furniture.			Number of Sitzings.	Number of Communicants.	Average Number Attending Service.	No. Months Service has been Regularly Maintained for Year Ending June 30, 1890.	Amount Paid Pastor, Including Amount Received from Missionary Board.	Amount Received from Missionary Board for Pastor's Salary.	Amount Pastors Salary Yet Unpaid.	Amount Raised for Missionary Purposes.	No. Additions to Church During Year Ending June 30, 1890.		
	Value of		Indebtedness on									By Profession.	By Letter.	Total.
	Church.	Parsonage.												
Baptist (American)	\$ 57,850	\$3,200	\$5,751	5,250	1,499	.....	12	\$ 19,222 80	\$ 7,517	\$ 965	\$ 429 00	190	182	372
" (German)	1,200	.....	.....	200	308	330	....	1,450 00	450	.....	94 00	38	8	46
" (Scandinavian)	1,200	.....	.....	150	140	150	12	1,000 00	418	22	228 00	29	3	32
Congregational	\$ 60,250	\$3,200	\$5,751	5,600	1,947	480	12	\$ 21,672 80	\$ 8,645	\$ 987	\$ 752 00	237	108	450
Methodist (1889) 58 churches	\$ 65,400	\$15,575	\$7,945	.....	1,980	.....	....	\$ 21,610 00	\$	\$	\$ 1,700 00	287	187	474
Methodist (Scandinavian) ..	116,960	25,400	26,970	.....	3,277	.....	....	94,072 00	8,750	7,746	1,708 10	.....	....	333
Lutheran (Scandinavian) ...	6,600	.....	1,100	460	180	290	12	1,494 00	948	.....	.....	.....	....	.....
Presbyterian	32,400	3,900	5,311	4,975	5,068	5,208	....	8,280 00	1,005	2,779	2,218 50	249	445	694
	108,701	22,040	2,200	8,475	2,912	5,400	....	43,550 00	12,600	.....	1,887 00	389	286	605
Totals	\$388,900	\$72,115	\$48,677	19,580	14,742	11,378	....	\$ 130,618 80	\$ 31,543	\$ 11,512	\$ 8,280 50	1,112	1,091	2,508

SABBATH SCHOOLS—STATE OF NORTH DAKOTA.

DENOMINATION.	Number of Schools.	Average Number Months Main- tained.	Total Enroll- ment.	Average Attend- ance.	Total Money Raised.	Total Money Expended.	Number Volumes in Library.
Baptist (American)	28	12	1,791	1,181	\$ 1,012 77	\$ 708 61	2,484
Baptist (German)	5	10	110	75	.....	.....	.....
Baptist (Scandinavian)	3	7	98	50	90 25	45 76	50
Total	36	.....	1,994	1,306	\$ 1,108 02	\$ 751 17	2,484
Congregational .....	.....	.....	3,654	2,490	\$	\$ 1,585 02	4,090
Presbyterian	98	.....	4,444	.....	.....	.....	.....
Lutheran (Scandinavian) ....	.....	.....	976	852	1,469 55	1,428 50	255
Methodist Episcopal	116	.....	5,596	.....	674 00	.....	.....
Union Sabbath Schools (Re- port incomplete)	31	.....	653	95	.....	.....	.....
Totals	281	.....	17,257	4,733	\$ 3,246 57	\$ 3,764 69	6,829

PUBLIC LANDS.

There are four United States land districts in North Dakota, the land offices being at Fargo, Grand Forks, Devils Lake and Bismarck. There is also to be a new district soon formed, and an office established, probably at Minot. The following tables give the number of acres vacant and subject to entry in the various counties for October 1, 1890, except in the Bismarck district, from which no information could be obtained later than October 1, 1889, without the expenditure of funds which this office was not authorized to make. The figures for 1889 will not greatly differ, however, from those of 1890. Information about lands and how to acquire them may be had by addressing any of the land officers named below.

FARGO LAND DISTRICT.

OFFICE AT FARGO, CASS COUNTY.

WALDO M. POTTER, Register. NEHEMIAH DAVIS, Receiver.

COUNTIES.	No. of Acres Sub- ject to Entry Oct. 1, 1890.	COUNTIES.	No. of Acres Sub- ject to Entry Oct. 1, 1890.
Barnes	16,200	Ransom	18,300
Cass	480	Richland	22,700
Dickey	69,800	Sargent	5,800
Eddy	80,400	Steele	720
Foster	54,000	Stutsman	71,600
Griggs	28,400		
LaMoure	29,600	Total number of acres subject to entry	348,000

DEVILS LAKE LAND DISTRICT.

OFFICE AT DEVILS LAKE, RAMSEY COUNTY.

E. G. SPILMAN, Register.

JOHN A. PERCIVAL, Receiver.

COUNTIES.	No. of Acres Sub- ject to Entry Oct. 1, 1890.	COUNTIES.	No. of Acres Sub- ject to Entry Oct. 1, 1890.
Benson.....	520,000	Ramsey.....	27,000
Bottineau.....	480,000	Rolette.....	800,000
Church.....	640,000	Towner.....	525,000
Eddy.....	37,000	Wells.....	210,500
McHenry.....	800,000		
Pierce.....	520,000	Total number of acres subject to entry.....	4,059,500

GRAND FORKS LAND DISTRICT.

OFFICE AT GRAND FORKS, GRAND FORKS COUNTY.

JAMES ELTON, Register. J. I. STOKES, Receiver.

COUNTIES.	No. of Acres Sub- ject to Entry Oct. 1, 1890.	COUNTIES.	No. of Acres Sub- ject to Entry Oct. 1, 1890.
Benson.....	29,840	Ramsey.....	113,560
Cavalier.....	292,400	Walsh.....	52,860
Grand Forks.....	.....	Unorganized.....	142,520
Nelson.....	42,640		
Pembina.....	.....	Total number of acres subject to entry.....	673,820

BISMARCK LAND DISTRICT.

OFFICE AT BISMARCK, BURLEIGH COUNTY.

E. S. NEAL, Register. ASA FISHER, Receiver.

COUNTIES.	Number of Acres Subject to En- try Oct. 1, 1889.	COUNTIES.	Number of Acres Subject to En- try Oct. 1, 1889.
McIntosh	178,660	Dunn	358,400
Emmons	237,960	McKenzie	368,640
Logan	280,380	Stevens	737,280
Morton	788,350	Ward	473,440
Hettinger	624,640	Renville	880,640
Bowman	348,160	Mountraille	819,200
Billings	671,040	Flannery	1,187,840
Stark	450,240	Buford	942,080
Oliver	159,840	Allred	168,840
Burleigh	285,560	McHenry	81,920
Kidder	265,120	Williams	317,440
Stutsman	215,200	Foster	3,520
Wells	183,680	Eddy	960
Sheridan	311,790	Garfield	20,200
Wallace	85,640	Total number of acres subject to entry	11,622,500
McLean	96,160		
Mercer	184,480		
Total number of acres in all land districts open to entry			16,708,820

RAILROAD LANDS.

There are, mostly from Jamestown west, large amounts of Northern Pacific railroad lands for sale, full particulars concerning which may be obtained by addressing the Land Department of that company, at St. Paul, Minn. The prices of these lands east of the Missouri river range from \$2.50 to \$5.00 per acre, payable in preferred stock of the company. West of that river the prices are from \$1.50 to \$5.00 per acre, payable in money.

FARMERS INSTITUTES.

The States of Minnesota and Wisconsin, among the Western States, each maintain a regular system of Farmers Institutes, with a superintendent and corps of competent instructors, and publishes for free distribution among the farmers of the State many thousands of copies of the reports and bulletins issued.

The information received from these States indicates that these Institutes have had a very flattering success, and that in the improved methods and advanced ideas inculcated they save to the State, and especially to the farmers, many times the cost of maintaining them.

The Commissioner cordially recommends the establishment of such Institutes in the State of North Dakota, properly guarded against any exorbitant or unnecessary expense, as a means of improving and broadening the agriculture of the State. The farmers of North Dakota cannot afford to experiment individually as to many crops and processes that need practical demonstration, and instructing them in such matters by means of well conducted Farmers Institutes, and the bulletins and reports published in connection with them, will cost hardly a fraction of the amount that would be wasted by the individual farmers obtaining the same knowledge experimentally. Especially is this true with regard to the sheep industry, which seems about to be established in the State on a large scale, and which to be successful, requires accurate knowledge and careful handling. The same applies in scarcely a less degree to all kinds of stock raising and farm management. The requisite knowledge that will decide between suc-

cess and failure can be imparted in this way at infinitely less expense than to let each farmer find out for himself by costly experience.

The cost of maintaining these institutes will not be excessive, and the publications from them will constitute the most valuable and practical farm literature to be had for the State. The institutes should be under the auspices of the State Agricultural College, University or Experiment Station, so as to have an educational feature and obtain the prestige and use of the libraries and apparatus of these institutions, and be removed as much as possible from politics.

It is hoped that the Legislature at the coming session will make proper provision for such Institutes.

POSTAL GUIDE FOR NORTH DAKOTA.

The appended list of post offices in the State has been corrected and revised from official sources, and comprises all offices established as late as October 1, 1890. The whole number of offices is 485, being a net gain during the year of thirty-seven. Since October 1, 1889, forty-three new offices have been established, six have been discontinued, and the site of one and the names of eight have been changed.

ALPHABETICAL LIST OF POSTOFFICES

IN THE STATE OCTOBER 1, 1890.

Postoffice.	County.	Postoffice.	County.
Abbottsford.....	Benson	Binghamton.....	Cass
Absarake.....	Cass	Bisbee.....	Towner
Acton.....	Walsh	Bismarck, C. H.....	Burleigh
Adams.....	Walsh	Blanchard.....	Traill
Addison.....	Cass	Bollinger.....	Rolette
Adler.....	Nelson	Bottineau, C. H.....	Bottineau
Adrian.....	LaMoure	Bowesmont.....	Pembina
Akra.....	Pembina	Brampton.....	Sargent
Albion.....	Stutsman	Broncho.....	Williams
Alderman.....	Barnes	Brookland.....	Sargent
Alma.....	Cavalier	Bruce.....	Pembina
Amenia.....	Cass	Buchanan.....	Emmons
Aneta.....	Nelson	Bue.....	Nelson
Antelope.....	Stark	Buffalo.....	Cass
Ardock.....	Walsh	Burlington.....	Ward
Argusville.....	Cass	Buttzville.....	Ransom
Armstrong.....	Emmons	Buxton.....	Traill
Arrowwood.....	Stutsman	Byron.....	Cavalier
Arthur.....	Cass	Cable.....	Grand Forks
Arvilla.....	Grand Forks	Caledonia, C. H.....	Traill
Ashley, C. H.....	McIntosh	Cando, C. H.....	Towner
Ashtabula.....	Barnes	Cannon Ball.....	Morton
Atwill.....	Stutsman	Carlisle.....	Pembina
Auburn.....	Walsh	Carrington, C. H.....	Foster
Ayr.....	Cass	Cashel.....	Walsh
Backoo.....	Pembina	Casselon.....	Cass
Baconville.....	Nelson	Causey.....	Mercer
Barlow.....	Foster	Cavalier.....	Pembina
Barnes.....	Barnes	Cayuga.....	Sargent
Barrie.....	Richland	Cecil.....	Towner
Bartlett.....	Ramsey	Christine.....	Richland
Bathgate.....	Pembina	Church's Ferry.....	Ramsey
Bay Centre.....	Pembina	Clarena.....	Towner
Bean.....	Grand Forks	Clement.....	Dickey
Beaulieu.....	Pembina	Clifford.....	Traill
Belcourt.....	Rolette	Coal Harbor.....	McLean
Belfield.....	Stark	Coburn.....	Ransom
Belleville.....	Grand Forks	Cogswell.....	Sargent
Bellevyria.....	Steele	Coldwater.....	McIntosh
Belmont.....	Traill	Colfax.....	Richland
Bentley.....	Oliver	Colgate.....	Steele

Postoffice.	County.	Postoffice.	County.
Conger	Burleigh	Fox Lake	Ramsey
Conkling	McLean	Fullerton	Dickey
Conway	Walsh	Galesburg	Traill
Coolin	Towner	Gallatin	Griggs
Cooperstown, C. H.	Griggs	Galt	Walsh
Corinne	Stutsman	Gardar	Pembina
Crary	Ramsey	Gardner	Cass
Crofte	Burleigh	Gayton	Emmons
Cromwell	Burleigh	Geneseo	Sargent
Crosier	Nelson	Gertrude	Cavalier
Crystal	Pembina	Gilby	Grand Forks
Crystal Springs	Kidder	Gill	Cass
Cummings	Traill	Gladstone	Stark
Daily	Barnes	Glasscock	Burleigh
Dakem	Emmons	Glasston	Pembina
Danbury	Emmons	Glencoe	Emmons
Daniels	Cavalier	Glenfield	Foster
Dash	Towner	Glen Ullin	Morton
Davenport	Cass	Glover	Dickey
Dawson	Kidder	Golden Lake	Steele
Dazey	Barnes	Grafton, C. H.	Walsh
Deapolis	Mercer	Graham's Island	Benson
DeGroat	Ramsey	Grand Forks, C. H.	Grand Forks
DeLamere	Sargent	Grand Harbor	Ramsey
Denney	Pierce	Grandin	Cass
Des Lacs	Ward	Grand Rapids	LaMoure
Deville	Richland	Granville	McHenry
Devils Lake, C. H.	Ramsey	Gray	Stutsman
Dickey	LaMoure	Great Bend	Richland
Dickinson, C. H.	Stark	Griswold	LaMoure
Dogden	Church	Guelph	Dickey
Drayton	Pembina	Hackett	Barnes
Driscoll	Burleigh	Hague	Traill
Dundee	Walsh	Hallson	Pembina
Dunseith	Rolette	Hamilton	Pembina
Durbin	Cass	Hamlin	Sargent
Dwight	Richland	Hampton	Emmons
Easby	Cavalier	Hancock	McLean
Echo	Ward	Hankinson	Richland
Eckelson	Barnes	Hannaford	Griggs
Edberg	Burleigh	Hannah	Cavalier
Edgeley	LaMoure	Hanover	Oliver
Edinburgh	Walsh	Harlem	Sargent
Edmunds	Stutsman	Harmon	Morton
Eldred	Cass	Harrisburg	Nelson
Eldridge	Stutsman	Harwood	Cass
Elkwood	Cavalier	Hastings	Barnes
Ellendale, C. H.	Dickey	Hatton	Traill
Ellerton	Cavalier	Havana	Sargent
Elliott	Ransom	Hazen	Mercer
Ellsberry	Barnes	Hebron	Morton
Ely	McHenry	Helena	Griggs
Embsden	Cass	Hensel	Pembina
Embrado	Grand Forks	Hensler	Oliver
Emmonsburg	Emmons	Hickson	Cass
Englevale	Ransom	Hillsboro	Traill
Erickson	McLean	Hillsdale	Dickey
Erie	Cass	Holmes	Grand Forks
Ernest	Pembina	Hoople	Walsh
Esler	Stutsman	Hope	Steele
Everest	Cass	Horace	Cass
Ewen	Foster	Horn	Stutsman
Exeter	Emmons	Hull	Emmons
Eyford	Pembina	Hunter	Cass
Fairmount	Richland	Hurricane Lake	Pierce
Falconer	McLean	Hyde Park	Pembina
Fargo, C. H.	Cass	Ingersoll	McLean
Farmington	Richland	Inkster	Grand Forks
Forest River	Walsh	Iola	Ramsey
Forman, C. H.	Sargent	Island Lake	Rolette
Forsby	Sargent	Jackson	Ramsey
Fort Abercrombie	Richland	Jamestown, C. H.	Stutsman
Fort Abraham Lincoln ..	Morton	Jerusalem	Ramsey
Fort Berthold	Garfield	Jessie	Griggs
Fort Buford	Buford	Jewell	McIntosh
Fort Ransom	Ransom	Johnstown	Grand Forks
Fort Stevenson	Stevens	Joliette	Pembina
Fort Totten	Ramsey	Joslyn	Renville
Fort Yates	Boreman	Kelso	Traill

Postoffice.	County.	Postoffice.	County.
Kelly's	Grand Forks	Newbre	Ramsey
Kempton	Grand Forks	New England City	Hettinger
Kildahl	Ramsey	New Rockford, C. H.	Eddy
Kindred	Cass	New Salem	Morton
Kiner	Wells	Niagara	Grand Forks
King	Logan	Nicholson	Sargent
Kinloss	Walsh	Norman	Cass
Kloeppel	Richland	Northwood	Grand Forks
Knox	Benson	Norwegian	McIntosh
Kongsberg	Richland	Nowesta	Pembina
Krem	Mercer	Oakdale	Dunn
Lakota, C. H.	Nelson	Oakes	Dickey
Langedahl	Kidder	Oberon	Benson
Lambert	Walsh	Odell	Barnes
LaMoire, C. H.	LaMoire	Ojata	Grand Forks
Lane	McHenry	Olga	Cavalier
Langdon, C. H.	Cavalier	Omamee	Bottineau
Larimore	Grand Forks	Omo	Emmons
Larabee	Foster	Oriska	Barnes
Latona	Walsh	Orr	Grand Forks
Laureat	Rolette	Osago	Nelson
Lee	Nelson	Oshkosh	Wells
Leeds	Benson	Osnabrock	Cavalier
Leonard	Cass	Ottawa	Griggs
Leroy	Pembina	Ottofy	Nelson
Lidgerwood	Richland	Owego	Ransom
Lisbon, C. H.	Ransom	Page	Cass
Litchville	LaMoire	Painted Woods	Burleigh
Livona	Emmons	Park River	Walsh
Locke	Ramsey	Pembina, C. H.	Pembina
Logan	Ward	Pendroy	McHenry
Lone Tree	Ward	Penn	Ramsey
Lordsburg	Bottineau	Perth	Towner
Lorraine	Dickey	Petersburg	Nelson
Lowell	McIntosh	Peterson	Cass
Ludden	Dickey	Pickert	Steele
McCanna	Grand Forks	Pickton	Towner
McKenzie	Burleigh	Pingree	Stutsman
McKinney	Renville	Pisek	Walsh
McRae	Bottineau	Pittsburgh	Pembina
McVile	Nelson	Pleasant Lake	Benson
Maida	Cavalier	Plymouth	Ransom
Mandan, C. H.	Morton	Portland	Traill
Manvel	Grand Forks	Power	Richland
Mapes	Nelson	Praha	Walsh
Mapleton	Cass	Prattford	Pembina
Mardell	Steele	Quay	Rolette
Mayville	Traill	Quincy	Traill
Medbery	LaMoire	Ransom	Sargent
Medford	Walsh	Reynolds	Grand Forks
Medora, C. H.	Billings	Richardton	Stark
Mekinock	Grand Forks	Ridgefield	Cavalier
Melby	Foster	Rio	Stutsman
Melville	Foster	Ripon	Cass
Menoken	Burleigh	Rolla	Rolette
Merricourt	Dickey	Romfo	Cavalier
Merrifield	Grand Forks	Romness	Griggs
Michigan	Nelson	Roop	Emmons
Milnor, C. H.	Sargent	Ruby	Nelson
Milton	Cavalier	Rugby, C. H.	Pierce
Minnewaukan, C. H.	Benson	Russell	LaMoire
Minne Lake	Barnes	Rutland	Sargent
Minot, C. H.	Ward	Rutten	Ramsey
Minto	Walsh	St. Andrew	Walsh
Mohler	Sargent	St. Carl	Ward
Mona	Cavalier	St. Johns, C. H.	Rolette
Monango	Dickey	St. Thomas	Pembina
Montpelier	Stutsman	Sanborn	Barnes
Moreton	Richland	Sansahville	Bottineau
Morris	Eddy	Scovill	Ransom
Mountain	Pembina	Sentinel Butte	Billings
Mount Carmel	Cavalier	Seymour	Richland
Mouse River	McHenry	Sharlow	Stutsman
Mugford	Pembina	Sharon	Steele
Napoleon, C. H.	Logan	Sheldon	Ransom
Nebo	Steele	Shenford	Ransom
Neche	Pembina	Shepard	Pembina
Nesson	Flannery	Sherbrooke, C. H.	Steele
Newburg	LaMoire	Sheyenne	Eddy

